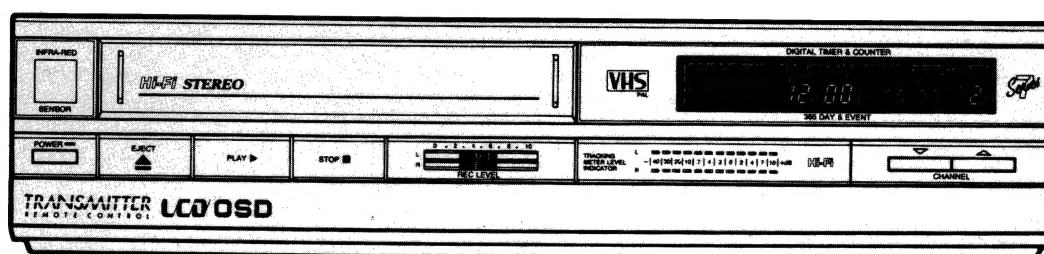




HQ  
Hi-Fi

# SERVICE MANUAL

SVM-P8-002-1E  
68139 - 082 - 102



## SPECIFICATION

Format : VHS PAL standard  
Recording System : Rotary, azimuth two-head helical scanning system  
Television System : PAL colour and B/W signal  
Tape Width : 12.65mm (1/2 inch)  
Tape Speed : SP:23.39mm/sec,  
LP:11.695mm/sec  
Record/Playback Time : 4(8) hours with E-240 Tape in SP(LP) mode  
FF/REW Time : Less than 6min. with E-180  
Heads  
Video : 2 Rotary heads  
Audio : 2 Rotary heads (Hi-Fi)  
Audio/Control : 1stationary head(Mono)  
Erase : 1 Full track Erase  
1 Audio track erase(Linear)

Video  
Input : 0.5 to 2.0 Vp-p :75ohm unbalance  
Output : 1.0 Vp-p 75ohm unbalance  
Signal-to-Noise Ratio : Better than 40dB (SP/LP)  
Horizontal Resolution : More than 240 Lines

Audio  
Input : Audio IN(L,R)jack(RCA):  
-8dBm, 47Kohm unbalanced  
Output : Audio Out(L,R) jack(RCA):  
-6dBm, 1Kohm unbalanced  
Dynamic Range : Better than 80dB (Hi-Fi)  
Wow-Flutter : Less than 0.005%(Hi-Fi)  
Frequency  
Characteristics : 20-20000Hz(Hi-Fi)

RF Output : 75 ohm unbalanced  
CCIR UHF channel 30 to 39  
(adjustable), Preset to 36  
Power Requirement : AC 240V, 50Hz (UK)  
AC 220V, 50Hz(W/G)  
Operating Temperature : 5 to 40 DEG.C (41 F-104 F)  
Operating Humidity : 10% - 75%  
Power Consumption : Approx. 30 watts (When the POWER button is OFF Approx. 7.3 watts)  
Dimensions : 420(W) x 93(H) x 367 (D) mm  
Weight : 18.7 lbs(8.5kg)

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# 1. GENERAL DESCRIPTION

## 1-1. SAFETY PRECAUTIONS

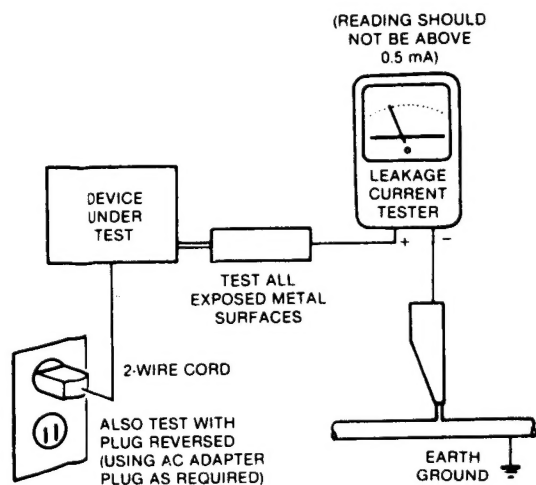
1. Before returning a Video Cassette Recorder to the customer, always make a safety check of the entire instrument, including, but not limited to the following items:

a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reassembling the instrument, be sure to put back in place all protective devices, including, but not limited to nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks.

Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) excessively wide cabinet ventilation slots, and (2) improperly fitted and/or incorrectly secured cabinet covers.

c. **Antenna Cold Check**-With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, to each of the coaxial connectors. If the measured resistance is less than 1.0 megaohm or greater than 5.2 megaohm, an abnormality exists that must be corrected before the instrument is returned to the customer.



AC Leakage Test

Repeat this test with the instrument AC switch in the off position.

d. **Leakage Current Hot Check** - With the instrument completely reassembled plug the AC line cord directly into a 220V(240V /UK) AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101. 1 *Leakage Current for Appliances* and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal waterpipe, conduit, etc) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, controls shafts, etc), especially any exposed metal parts that offer an electrical retune path to the chassis. Any current measured must not exceed 0.5milliamp. Reverse the instrument power cord plug in the outlet and repeat test.

**ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR CONNECTING ANTENNA OR ACCESSORIES.**

### e. AC Leakage Test

Avoid shock hazards. The television instrument, accessory, or cables(s) to which this VCR is connected should have the applicable sections of the antennas cold check and the leakage current hot check performed. Do not connect this VCR to a TV antenna, cable or accessory that exhibits excessive leakage currents.

2. Read and comply with all caution and safety related notes on or inside the VCR cabinet and chassis.

3. **Design Alteration Warning** - Do not alter or add to the mechanical or electrical design of this Video Cassette Recorder. Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this instrument and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer responsible for personal injury or property damage resulting therefrom.

4. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: a. near sharp edges, b. near thermally hot parts- be sure that leads and components do not touch thermally hot parts, c. the AC supply, and d. antenna wiring. Always inspect in all areas for pinched, out-of place, or frayed wiring. Do not change



spacing between components, and between components and the printed circuit board. Check AC power cord for damage.

5. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damaged and, if necessary, take corrective action to remove any potential safety hazard.

#### 6. PRODUCT SAFETY NOTICE

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, not can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a (\*) or (!) on schematics and parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. Products Safety is under review continuously and new instructions are issued whenever appropriate.

#### Electrostatically Sensitive (ES) devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices*. Examples of typical ES devices are integrated circuits and some field-effect transistor and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a *grounded-tip* soldering iron to solder or unsolder ES devices.

4. Use only an *anti-static* type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do *not* use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do *not* remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed **CAUTION:** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

## **1-2. GENERAL INFORMATION**

Stereo video recorder conforming to the Hi-Fi VHS format, assuring high-quality sound recording and playback with independent rotary audio heads exclusively for Hi-Fi audio recording and playback.

Selectable audio monitoring, Hi-Fi stereo or longitudinal audio track or both mixed (useful for listening to Hi-Fi stereo together with dubbed narration, for example).

### **\* VPS (Video programme System ) decoder built in. (OPTION)**

Converts the programmed timer data into VPS codes for VPS recording; so you can record even delayed broadcasts accurately and automatically. (VPS broadcasts are available only from TV stations in West Germany.)

### **\* VHS HQ Picture Quality**

This VCR incorporates VHS HQ ( High Quality) circuitry for improved picture quality. It is fully compatible with earlier VHS VCR's.

### **\* 1 YEAR / 8 EVENTS TIMER.**

#### **\* One Touch Recording (O.T.R)**

Two touch-buttons permit automatic timer recording without the need for numerous programming steps. Just enter starting time and length of desired program up to 24 hours before it airs. VCR will turn on at the correct time, record the program, and automatically shut off.

#### **\* Tape Counter and Memory Stop Feature**

The tape counter is used for finding a particular point on a pre-recorded.

#### **\* 2-Speed Picture Search**

The fast forward and rewind buttons can be used for picture searching when you are playing a tape. The new 2-speed picture search provides 2 forward and reverse searching speeds.

#### **\* 89 CH Frequency synthesizer tuner with 60 channel storage capacity**

#### **\* View a Fine Still Picture.**

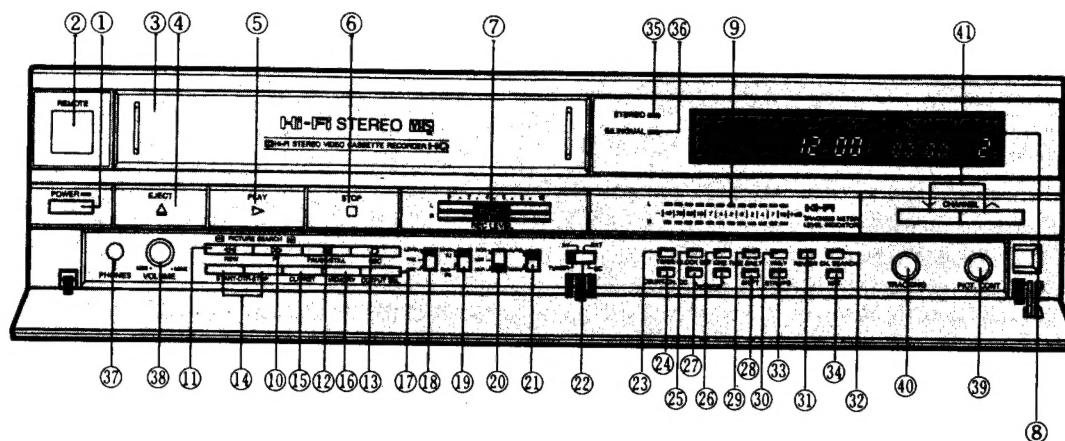
#### **\* Watch one TV program while recording another.**

#### **\* OSD(On Screen Display). (OPTION)**

#### **\* LCD Programme can be used.(OPTION)**

## 1-3. OPERATING CONTROLS AND FUNCTIONS.

### 1-3-1. FRONT VIEW



#### 1. POWER Button

Push to turn VCR on and off.  
Indicator lights up when Power is on.

#### 2. INFRARED REMOTE Sensor

Receives signals from the Remote Control.

#### 3. VIDEO CASSETTE COMPARTMENT

Push the cassette gently through the door until you feel the VCR begin to pull the tape into the compartment. The cassette-in indicator in the display will light.

#### 4. EJECT Button

Ejects the cassette from the VCR.

#### 5. PLAY Button

Starts playback. If you insert a cassette with the tab removed, the tape will automatically play.

#### 6. STOP Button

Push to stop the tape during playback, recording, rewind or fast-forward.

#### 7. Hi-Fi audio recording level controls.

The recording level of Hi-Fi audio signals can be manually adjusted when the ALC switch is in the MANU position. For adjustment, slide these controls referring to the audio level indicators(9); the upper for

left channel and the lower for right channel. When the squares up to 0 dB light with the loudest signal being applied, the recording level is optimum.

#### 8. Fluorescent Display Section

#### 9. Audio Level / Hi-Fi Tracking Indicators

These indicators, one for left channel and one for right channel, show the recording level of Hi-Fi audio signals during recording. During playback, these show the playback level of audio signals. The left-channel indicator also function as a Hi-Fi tracking meter, depending on the setting of the LEVEL INDICATOR switch.

#### 10. F.F / FORWARD SEARCH Button

To fast forward the tape, press this button while in the Stop mode. To view the speeded-up picture in the forward direction for programme search, press this button in PLAY mode.

#### 11. REW / REVERSE SEARCH Button

To rewind tape, press this button while in the Stop mode. To view the speeded-up picture in the reverse direction for programme search, press this button in PLAY mode.

## 12. PAUSE / STILL Button

Press to stop the tape temporarily to avoid recording of unwanted material in REC mode or to view a still picture in PLAY mode. Press REC or PLAY button to cancel this mode.

## 13. REC(RECORD) Button

Push the REC button the start recording.

## 14. START - OTR - STOP Button

The START and STOP buttons are used for OTR recording.

\*Press the STOP button if you wish to start recording immediately. Each time you press STOP the VCR will record for another 1/2 hour within 2 hour and another 1 hour within from 2 hour to 5 hour.  
(You can set the STOP button from 30 minutes to 5 hours.)

\*Press the START button from if you want to delay the beginning of your recording. Continue to press START until the time you wish to begin recording appears in the fluorescent display. Then press the STOP button for the time you want the VCR to record.

## 15. CLR / RESET Button

Use to reset the counter to "0000" or to clear the timer setting programme.

## 16. Memory Button

Press this button. While rewinding, the tape will stop automatically when the counter reaches exactly "0000". But if this the counter is near "0000" ("9995" - "0005") at first, it will be operated like this.

## 17. OUTPUT SEL Button

For selecting the audio output signals from the AUDIO OUTPUT terminals (L-CH and R-CH), the headphone, and RF out.

Note; Audio monitor select switch have to be in Hi-Fi position.

	AUDIO OUTPUT terminals		Headphone		RF OUT
	LCH	RCH	LCH	RCH	
In normal state (ST)	L	R	L	R	L+R
First touch (Lch)	L	L	L	L	L
Second touch (Rch)	R	R	R	R	R

## 18. LEVEL INDICATOR Switch

Selects the function of the audio level / Hi-Fi tracking meter.

OFF : to turn the meter off.

LEVEL : to obtain the indication of audio level.

TRK : to use the meter for Hi-Fi tracking adjustment.

## 19. TUNER SOUND SELECT Switch (OPTION)

Selects the desired soundtrack to be recorded on the normal audio track. Both soundtracks will be recorded on the Hi-Fi audio track with the main one on channel-L and the sub one on channel-R.

MAIN(L) : the record the main sound track

(local language on bilingual programme, L CHANNEL on stereo programme).

SUB(R) : to record the sub soundtrack

(foreign language on bilingual programme, R CHANNEL on stereo programme).

## 20. AUDIO MONITOR SELECT Switch

Selects the audio tracks to be listened to. This switch is effective for all audio outputs (RF OUT, HEAD PHONE, and AUDIO OUT).

NORM: to listen to the sound on the normal audio track.

MIX : to listen to the mixed sound of Hi-Fi and normal audio tracks (for example, to enjoy Hi-Fi audio while at the same time listening to a narration dubbed onto the normal audio track).

## 21. ALC(Audio Level Control) Switch

Hi-Fi audio recording level is automatically adjusted to prevent over-level recording in AUTO position. Hi-Fi audio recording level can be manually adjusted with the Hi-Fi REC level slide controls in MANU position.

\*Playback level has no relation to the Hi-Fi REC LEVEL controls.

\*The recording level of normal audio signals is always adjusted automatically regardless of the setting of the ALC switch.

## 22. SOURCE SELECT Switch

For selecting the recording input signal.

TUNER: To record signals coming from the built-in tuner.

AV: To record signals coming from a unit connected to the rear panel AUDIO / VIDEO socket.

SC: To record the video signal and the normal audio signal from the built-in tuner and the Hi-Fi audio signal from the rear panel AUDIO IN connectors. When recording FM simulcast TV programmes, use this position.

EXT: To record signals coming from a unit connected to the rear panel AUDIO IN and VIDEO IN connectors.

## 23. TIMER Button

Press this button after programming for unattended recording. Press to stop timer recording.

**24.COUNT/CH.CC Button**

Press this button to switch between the rear channel display and the tape counter display in the VCR fluorescent display section.

**25.CLOCK SET Button**

Press this button for clock setting.

**26. ONE TIME Button**

Press this button when you want to preset the time for unattended recording. The entire display will change to the time set mode.

**27." + " "-" Button**

Press these buttons for timer recording(one time, weekly, daily), selection of a real channel, and MFT operation.

**28.SHIFT Button**

Press this button to go to the next step while you are doing CLOCK setting, TIMER recording, or the selection between CH and CC.

**29.DAILY Button**

Press this button when you want to record the same time daily (Monday - Friday).  
The entire display will change to the time set mode.

**30.WKLY(Weekly) Button**

Press this button when you want to record the same time weekly.  
The entire display will change to the time set mode.

**31. REVIEW Button**

Press this button when you want to review the timer programme.

**32.CH. SEARCH Button**

Press this button for automatic channel search.

**33. STR/VPS Button (OPTION)**

\*Press this button for pre-tuning the built-in tuner to TV stations in your area when obtained real channel mode with(24)button.

\*Remove VPS recording by pressing in the timer set mode. Because initial state of this button is VPS ON.

**34. MFT Button**

Use to tune for fine picture. After pushing MF button, control(+) and(-)button to show better picture.

**35. STEREO Indicator (OPTION)**

Lights when a stereo programme is being received.

**36. BILINGUAL Indicator (OPTION)**

Lights when a bilingual programme is being received.

**37. Headphone Jack (HEADPHONE)**

Connect a set of headphone for monitoring or private listening.

**38. HEADPHONE LEVEL Control**

Adjusts the level of audio output from the headphone jack.

**39. PICTURE SHARPNESS Control**

Turn this knob clockwise to make the picture sharper. Turn counter clockwise to give the picture a softer tone. It is effective only for playback pictures.  
(No effect for recording)

**40. TRACKING Control**

Use this control to eliminate noise bars, if observed during playback.

Hi-Fi audio tracking can also be optimised using this control. When noise or breaks are sensed in the reproduced Hi-Fi sound, perform tracking adjustment. For this purpose, set the LEVEL INDICATOR switch to TRK and turn this control so that the greatest number of squares of the left channel audio level indicator light. (Only the left channel indicator lights in this case.)

**41. CHANNEL UP or DOWN BUTTON**

Press and hold the UP/DOWN side to review quickly press channels which are higher or lower than the currently tuned preset channel. Release the button when the desired channel number appears the FDP(fluorescent display panel).



### 1-3-2. REAR PANEL VIEW.

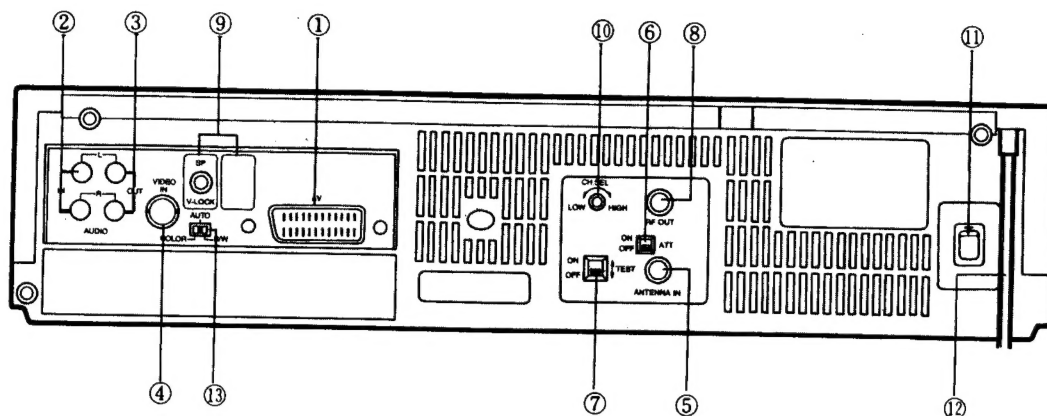


Fig.2

#### 1. AUDIO/VIDEO Socket.

A 21-pin standardised audio/video input/output socket for the connection to a stereo TV equipped with the same type of socket. The audio output can be selected with the AUDIO MONITOR SELECT switch.

#### 2. AUDIO IN Connectors

Connect to other audio source for recording sound when SOURCE SELECT switch is in EXT position.

#### 3. AUDIO OUT Connectors

Both Hi-Fi and normal audio signals can be obtained from these connectors. The output can be selected with the AUDIO MONITOR SELECT switch.

#### 4. VIDEO IN Connector

Connect to other video source for recording video when SOURCE SELECT switch is in EXT position.

#### 5. ANTENNA IN Connector

Connect an aerial to this connector.

#### 6. Attenuator Switch(ATT)

Set to OFF to receive broadcasts from distant stations. Set to ON to receive broadcasts of high field strength. Use a screwdriver for setting this switch.

#### 7. Test Signal Switch (TEST)

Set to ON when tuning your TV receiver for the video channel. A test signal in the form of two vertical white bars will be available.

#### 8. RF OUT Connector

Connect to the aerial connector of a TV receiver through the aerial cable(provided).

#### 9. V.LOCK Adjustment Screw

When operating in the Still mode, adjust this screw to eliminate some vertical vibration of the picture, by using a screwdriver.

#### 10. CHANNEL SELECTOR

In some areas the pre-set RF-output of your video cassette recorder may clash with a TV broadcast. If this occurs rotate this control using a small screwdriver in a clockwise or counterclockwise direction. A new video channel has now been set and you will need to return your television video channel to the new RF output.

#### 11. Main Power Switch

#### 12. Power Cord

#### 13. VIDEO MODE SELECT Switch

##### \* B/W(Black and White) mode

Show B/W screen subtracted color.

If B/W screen appears with inserted color tape, check this switch position.

##### \* AUTO mode

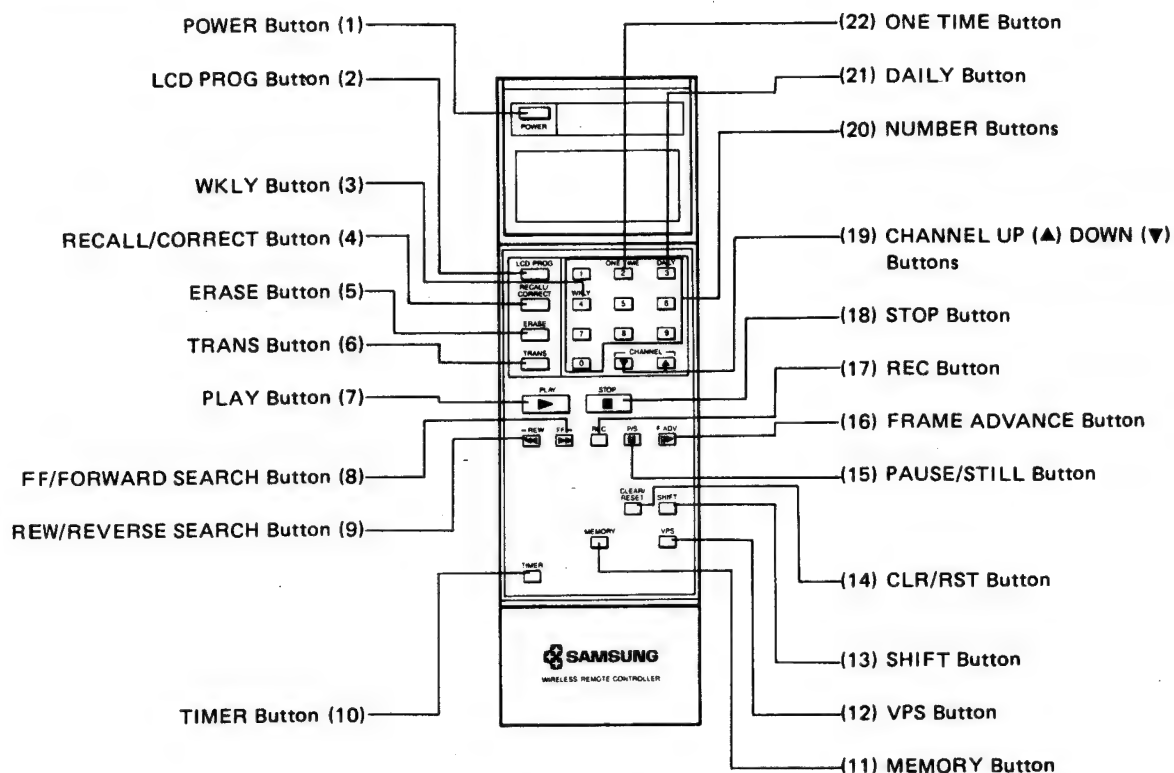
If video signal has nice color signal, show color screen. But if not, or if color signal is noisy, show B/W screen.

##### \* Color mode

Show color screen whenever video signal has color signal.

Note: Except special cases, the position of SW is hold in Auto.

### 1-3-3. REMOTE CONTROLLER (SVX-319,VB-770)



#### 1. POWER Button

Power on and off the VCR.

#### 2. LCD PROG Button

Press this button to bring Remote Control to LCD programming for programming the timer.

#### 3. WKLY Button (Only LCD programming)

Press this button when you want to record the same timer weekly.

The entire display will change to the timer set mode.

#### 4. RECALL / CORRECT Button

Press this button to correct LCD programme like CLR/RST button in your VCR's set.

#### 5. ERASE Button

Press the button to erase only LCD programme.

#### 6. TRANS Button

Press this button to transfer LCD programme from Remote Control to your VCR's set.

#### 7. PLAY Button

Starts playback.

#### 8. FF/FORWARD SEARCH Button

To fast forward the tape, press this button while in the stop mode. To view the speeded-up picture in the forward direction for programme search, press this button

in PLAY mode.

#### 9. REW/REVERSE SEARCH Button

To rewind the tape, press this button while in the Stop mode. To view the speeded-up picture in the reverse direction for programme search, press this button in PLAY mode.

#### 10. TIMER Button

Press this button after programming for unattended recording. Press to stop timer recording and O.T.R recording.

#### 11. MEMORY Button

Press this button. While rewinding, the tape will stop automatically when the counter reaches exactly "0000".

#### 12. VPS Button (OPTION)

Press for VPS recording in the timer set mode. Because initial state of this button is VPS OFF.

#### 13. SHIFT Button

Press this button to go to the next step while you are doing TIMER recording or the selection between CH and CC.

#### 14. CLR/RST Button

Use to reset the counter to "0000".

**15. PAUSE/STILL Button**

Press to stop the tape temporarily to avoid recording of unwanted material or to view a still picture in PLAY mode. Press to play button to cancel this mode.

**16. FRAME ADVANCE Button**

If the scene of your VCR set has much noise in STILL mode when playing, you can find less noisy scene with playing little by little by pressing this button.

Note; If tape condition is bad, you may not find nice scene.

**17. REC Button**

Press REC Button to begin recording.

**18. STOP Button**

Stop whatever the VCR is doing (record, playback, rewind, or fast forward).

**19. CHANNEL UP or DOWN Button**

Press and hold the UP/DOWN side to review quickly Preset channels which are higher or lower than the currently tuned preset channel. Release the button when the desired channel number appears on the FDP (fluorescent display panel).

**20. NUMBER Button (0 through 9)**

Select any channel (whether or not it is in the tuner scan-list) by pressing two buttons.

(Press "0", then "8", for channel 8.)

These buttons are also used for setting the clock and programming the timer.

**21. DAILY Button (Only LCD Programming)**

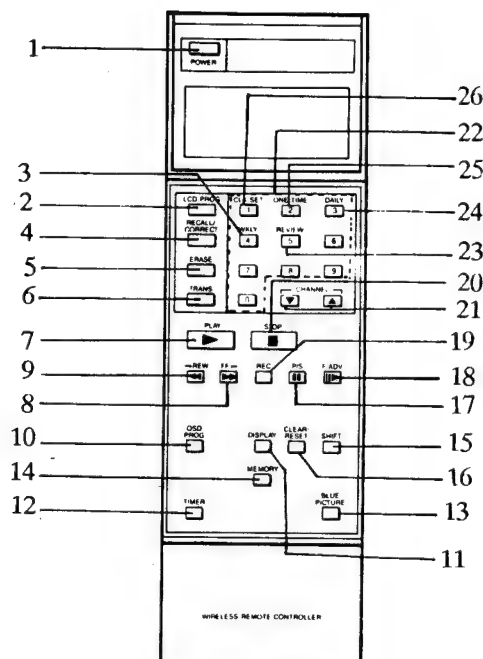
Press this button when you want to record the same time set mode.

**22. ONE TIME Button (Only LCD Programming)**

Press this button when you want to preset the time for unattended recording.

The entire display will change to the time set mode.

### 1-3-4.REMOTE CONTROL(VI-770,VX-770)



#### Location and Functions of the Remote Control Button

##### 1. POWER Button

Power on and off the VCR.

##### 2. LCD PROG Button

Press this button to bring Remote control to LCD programming for programming the timer.

##### 3. WKLY Button (Only LCD Programming)

Press this button when you want to record the same time weekly. The entire display will change to the time set mode.

##### 4. RECALL/CORRECT Button

Press this button to correct LCD programme like CLR/RST button in your VCR's set.

##### 5. ERASE Button

Press this button to erase only LCD programme.

##### 6. TRANS Button

Press this button to transfer LD programme from Remote Control to your VCR's set.

##### 7. PLAY Button

Starts playback.

##### 8. FF/FORWARD SEARCH Button

To fast forward the tape, press this button while in the stop mode. To view the speeded-up picture in the forward direction for programme search, press this button in PLAY mode.

##### 9. REW/REVERSE SEARCH Button

To rewind the tape, press this button while in the Stop mode. To view the speeded-up picture in the reverse direction for programme search, press this button in PLAY mode.

##### 10. OSD (On Screen Display) PROGRAMME Button

Press this button to switch VCR's mode to OSD programme mode.

##### 11. DISPLAY Button

Press this button to switch VCR's mode to OSD function mode.

##### 12. TIMER Button

Press this button after programming for unattended recording. Press to stop timer recording and O.T.R. recording.

##### 13. BLUE PICTURE Button

Press this button to make VCR's screen blue picture. You can use this button to see valid O.S.D.

##### 14. MEMORY Button

Press this button. While rewinding, the tape will stop automatically when the counter reaches exactly "0000".

##### 15. SHIFT Button

Press this button to go to the next step while you are doing TIMER recording or the selection between CH and CC.

**16. CLR/RST Button**

Use to reset the counter to "0000". You can use this button for correcting OSD programme digit.

**17. PAUSE/STILL Button**

Press to stop the tape temporarily to avoid recording of unwanted material or to view a still picture in PLAY mode.

**18. FRAME ADVANCE Button**

If the scene of your VCR set has much noise in STILL mode when playing, you can find less noisy scene with playing little by little by pressing this button.

NOTE : If tape condition is bad, you may not find nice scene.

**19. REC Button**

Press REC Button to begin recording.

**20. STOP Button**

Stops whatever the VCR is doing (record, playback, rewind, or fast forward).

**21. CHANNEL UP or DOWN Button**

Press and hold the UP / DOWN side to review quickly preset channels which are higher or lower than the currently tuned preset channel. Release the button when the desired channel number appears on the FDP (fluorescent display panel).

**22. NUMBER Button (0 through 9)**

Select any channel (whether or not it is in the tuner scan list) by pressing two buttons. (Press "0", then "8", for channel 8.).

These buttons are also used for setting the clock and programming the timer.

**23. REVIEW Button**

Press this button when you want to review the timer programme.

**24. DAILY Button (Only LCD Programming)**

Press this button when you want to record the same time daily. The entire display will change to the time set mode.

**25. ONE TIME Button (Only LCD Programming)**

Press this button when you want to preset the time for unattended recording. The entire display will change to the time set mode.

**26. CLOCK SET Button**

Press this button to set the clock in OSD programme mode.



## 1-4. ABBREVIATIONS

2 X	: Double	CE	: Earom OSD Enable Out
4.43MHz	: Color Sub Carrier	DO	: Earom S.Data Out
ACC	: Automatic Color Circuit	DI	: Earom S.Data In
ACK	: Automatic Color Killer	DRUM.S	: Drum Sensor (H'd Switching)
ADD	: Adder	DAVA	: Data Available Of VPS.
AFC	: Automatic Frequency Control	D.FG	: Drum Frequency Generator
AFT	: Automatic Fine Tuning	D.M.M	: Delayed Monostable
AGC	: Automatic Gain Control		Multivibrator
AL	: Always	D.O.P	: Drop Out Pulse
ALC	: Automatic Level Control	D.O.C	: Drop Out Compensator
AMP	: Amplifier	D.P.G	: Drum Pulse Generator
APC	: Automatic Phase Control	D/A	: Digital - to - Analog
AUD	: Audio	D/C	: Dark/Clip
AUX	: Auxillary	D/W	: Dark/White
BATT	: Battery	D.AFC	: Drum Auto Frequency Control
BE	: Burst Emphasis	D.APC	: Drum Auto Phase Control
BD	: Burset De-Emphasis	DE-EMPH	: De - Emphasis
BH	: Power Supply for Selecting VHF High Band	DEM	: Demodulator
BL	: Power Supply for Selectiong VHF Low Band	DET	: Detector
BPF	: Band Pass Filler	DEV	: Deviation
BU	: Back Up	DL	: Delay Line
C.FG	: Capstan Frequency Generator	D.LIM	: Double Limiter
C.FREERUN	: Capstan Free Run	DLYD	: Delayed
C.MEMORY	: Counter Memory	DM	: Drum Motor
C.SYNC	: Composite Sync	DN	: Down
C.RESET	: Counter Reset	E-E	: Electronic-to-Electronic
C.REVERSE	: Counter Reverse	EMPH	: Emphasis
C/R	: Cue/Rev	ENV	: Envelope
CAFC	: Capstan Auto Frequency Control	EQ	: Equalizer
CAPC	: Capstan Auto Phase Control	EXT	: External
CATV	: Cable TV	F.ADV	: Frame Advance
CAR	: Carrier	F-V	: Frequency to Voltage Converter
CB	: Carrier Balance	F.FWD	: Fast Forward
CAP	: Capstan	FB	: Feed Back
CCD	: Charge Coupled Devices	FH	: Frequency Horizontal
CH	: Channel	FG	: Frequency Generator
CHAR.	: Character	FM	: Frequency Modulator
CHROMA	: Chrominance	FSC	: Sub Carrier Frequency
CM	: Capstan Motor	FWD	: Forward
CNT	: Counter	F/R/M	: FF/REW/Motor Control
COM	: Common	GEN	: Generator
COMP	: Comparator	GND	: Ground
COMPE	: Compensator	HPF	: High Pass Filter
CON	: Control	HSS	: Horizontal SyncS eparator
CONV	: Converter	I/O	: Input/Output
CST	: Cassette	IF	: Intermediate Frequency
C-EMP	: Current Emphasis	INJ	: Injector
C-ERR	: Capstan Error		
CM-RUN	: Capstan Motor Error		
CAM.P	: Camere Pause		

IR	: Infrared	S/S/S	: Slow/Still/Stop
IL	: Current Limit	S.CLK	: Syscon Control
L/C	: Luminance/Chrominance	S.DI	: Syscon Data In
LED	: Light Emitting Diode	S.DO	: Syscon Data Out
LIM	: Limiter	S.EN	: Syscon Enable
LPF	: Low Pass Filter	SRST	: Syscon Reset
LS	: Latch Strobe	SCK	: Syscon Enable
LUMA	: Luminance	SDI	: Syscon Data In
M.C	: Main Converter	SDO	: Syscon Enable
MIX	: Mixer	SDA	: Serial Data
MM	: Monostable Multivibrator	SCL	: Serial Clock
MFT	: Manual Fine Tuning	T.EN	: Tuner Enable
MOD	: Modulator	T.CL	: Tuner Clock
M.SFT	: Meca Shift	T.DA	: Tuner Data
NR	: Noise Reduction	T.MUTE	: Tuner Channel Mute
N.C	: No Change	T.REEL	: Take-up Reel Sensor
NORM	: Normal	T.RESET	: Timer Reset
OSC	: Oscillator	TP	: Test Point
OTR	: One Touch Recording	TRK	: Tracking
P.LED	: Power LED	U/D	: Up/Down
PB	: Play Back	UL	: Unloading
P.CONT	: Power Control	UPS	: Unloading Play Still
PG	: Pulse Generator	VCL	: VPS Clock
PIF	: Picture Intermediate Frequency	V-REF	: Voltage Reference
PL	: Preloading	V-SYNC	: Vertical Sync
PLL	: Phase Lock Loop	VCO	: Voltage Control Oscillator
PLS	: Pulse	VCR	: Video Cassette Recorder
PRG	: Program	VIF	: Video Intermediate Frequency
PS	: Phase Shift	VSS	: Vertical Sync Separator
PWM	: Pulse Width Modulation	VHS	: Video Home System
PWR	: Power	V.DA	: VPS Data
P/R	: Playback/Record	VXO	: Voltage Controlled Crystal Oscillator
P/S	: Pause/Still	VIDJ	: Video Judge
QVP	: Quasi Vertical Sync	W/C	: White/Clip
REC	: Record	W/D	: White/Dark
REC.SAF	: Record Safety	W.T	: Wake up Time
REW	: Rewind	XPR	: Express Recording
RF	: Radio Frequency	uP	: Microprocessor
RC	: Remote Control		
S/H	: Sample and Hold		
SC	: Sub Converter		
SIF	: Sound Intermediate Frequency		
SEP	: Separator		
SP	: Standard Play		
SRCH	: Search		
SRV	: Servo		
SW25Hz	: Head Switching Pulse		
SYNC	: Synchronizing Signal		
SYSCON	: System Control		

## **1-5. CLEANING AND LUBRICATION**

### **1-5-1. CLEANING TAPE MECHANISM**

Periodic cleaning is necessary to insure continued excellent performance of the tape mechanism. To clean the following parts use "Kim Wipes" and solvent.

1. Capstan shaft.
2. All idler wheels.
3. All tape guide posts.
4. Supply and take-up reels.
5. Impedance roller.
6. Pinch roller.
7. Idler belt.
8. Loading belt.
9. Loading motor pulley.
10. Loading pulley.

To clean video heads, full erase head, and audio/control(A/C) head use only head cleaning kit and solvent.

**Note:**

When cleaning video heads move the cleaning stick in the direction of head rotation. Wiping in a vertical motion may damage the heads.

### **1-5-2. LUBRICATION TAPE MECHANISM**

The tape transport mechanism is properly lubricated at the factory. In normal use cycles, and with average environmental conditions, additional lubrication should not be required during the first year of operation.

Depending on use and environmental conditions, periodic lubrication may be required. When relubricating, remove old lubricant first, then sparingly apply new lubricant. (Excessive lubricant may be transferred to other assemblies causing multifunction).

Use grease on the following parts after 1,000 hours operation. (See exploded view for location.)

1. Between base pole (L) assembly and mecha chassis assembly.
2. Between level review cam and mecha chassis assembly.
3. Between base pole (R) assembly and mecha chassis assembly.
4. Between plate main side and mecha chassis assembly.
5. Between I.B slide assembly and plate main slide.
6. Between gear loading (L) and gear loading (R).
7. Between main gear, eject gear and worm.

Oil may be required for the following parts every, 1,000 hours operation. (See exploded view for location.)

1. Supply reel and take-up reel shafts.
2. Links of both loading arms.
3. Between shaft of tension arm and chassis.
4. Pressure roller arm.
5. Shaft of load pulley.

Other parts which are not listed above do not require lubrication, except if a part is replaced. Use appropriate oil or grease as indicated on exploded view.

## 2. DISASSEMBLY

### 2-1. INSTRUMENT DISASSEMBLY

#### 2-1-1. Top Cabinet Removal (Fig.1)

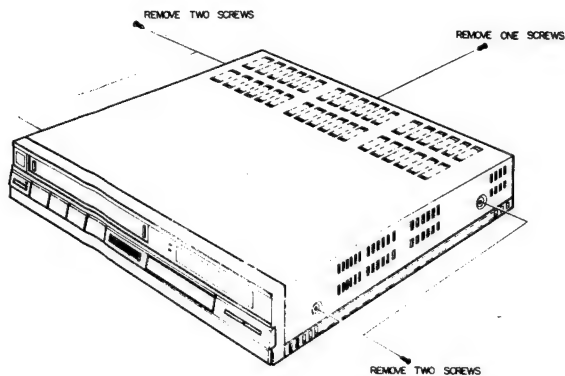


Fig.1

1. Remove five (5) screws located at the sides of the top cabinet.
2. Carefully lift the back of the top cabinet and slide it to the rear to remove.

#### 2-1-2. Bottom Cover Removal (Fig.2)

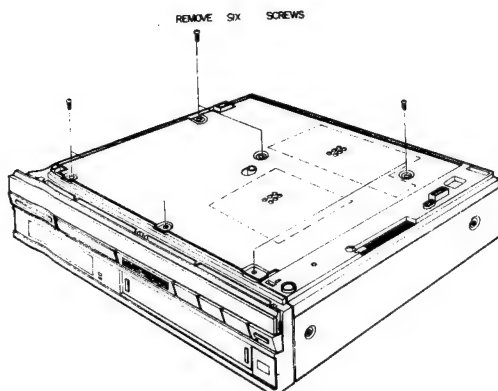


Fig.2

1. Remove six(6) screws holding the bottom cover.

#### 2-1-3. Front Panel Removal(Fig.3)

1. Remove the top cabinet and the bottom cover.  
(See Figs1,2)
2. Remove three(3) screws from the top of the front panel.
3. Tilt the front panel forward to remove.

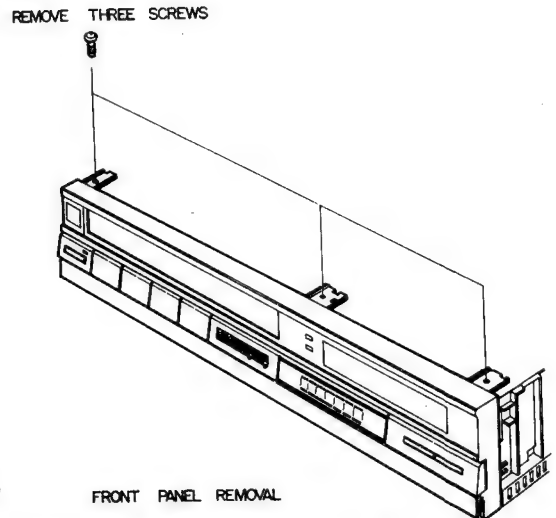


Fig.3

#### 2-1-4. Function Switch & Timer Input Key Circuit Board Removal(Fig.4)

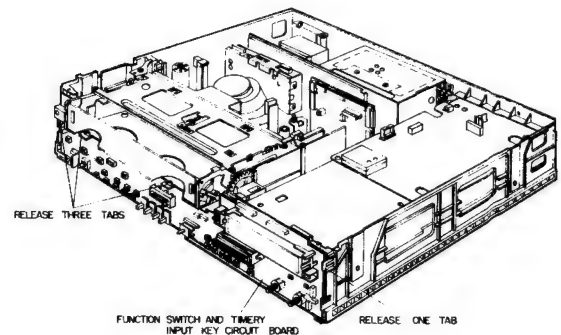


Fig.4

1. Follow the procedure for removing the panels.  
(See Figs.1 to 3)
2. Remove three screws holding the function and timer input key circuit board.
3. Release four(4) taps on the circuit board.

#### 2-1-5. Main- C (Hi-Fi) Circuit Board Removal(Fig.5)

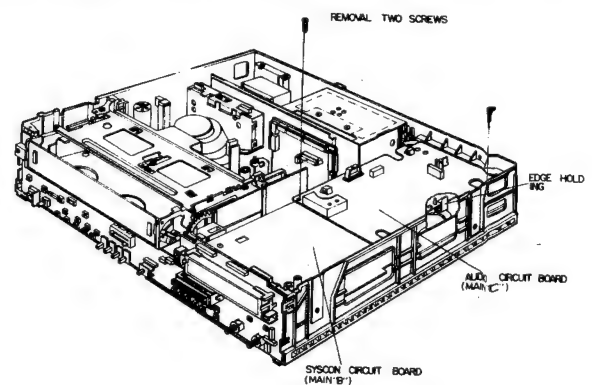


Fig.5

1. Follow the procedure for removing the panels.  
(See Figs.1 to 3)
2. Disconnect four connectors on the Main-C P.C. board.
3. Remove two screws on the Main -C P.C board.

#### 2-1-6. Main -B Circuit Board Removal(Fig.6)

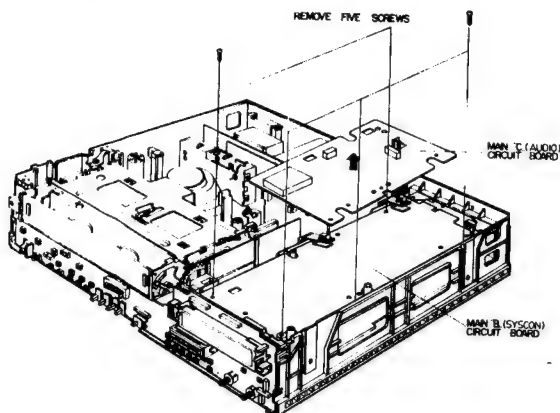


Fig.6

1. Follow the procedure for removing the panels.  
(See Figs.1 to 3)
2. Follow the procedure for removing the Main-C P.C. board.
3. Remove five screws on the Main-B P.C board.
4. Pull out the board in the direction of the arrow.

#### 2-1-7. Main-A (Y/C) Circuit Board Removal(Fig.7)

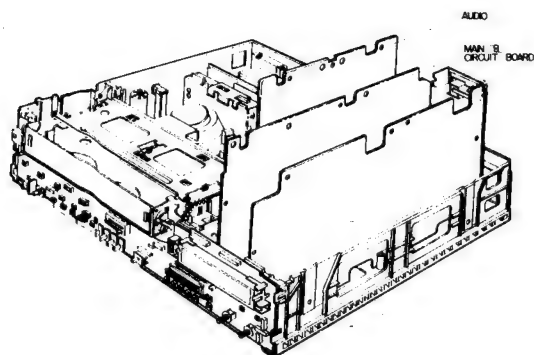


Fig.7

1. Follow the procedure for removing the panels.  
(See Fig.1 to 3)
2. Follow the procedure for removing the Main-C & Main-B P.C. board (See Figs 5.6)
3. Remove two screws on the Main-A P.C. board.
4. Disconnect connectors between the Main-A circuit board and the other circuit boards.
5. Lift up the assembly in the direction of the arrow.

#### 2-1-8. Regulator Circuit Board Removal(Fig.8)

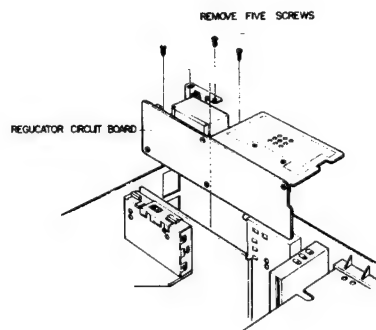


Fig.8

1. Follow the procedure for removing the panels.
2. Remove five screws from the frame.
3. Disconnect nine connectors on the Regulator circuit board.
4. Remove the IC from the Lower Drum.
5. Taking care of the cable assemblies, lift the regulator circuit board upward to release.

#### 2-1-9. Tuner Circuit Board Removal(Fig.9)

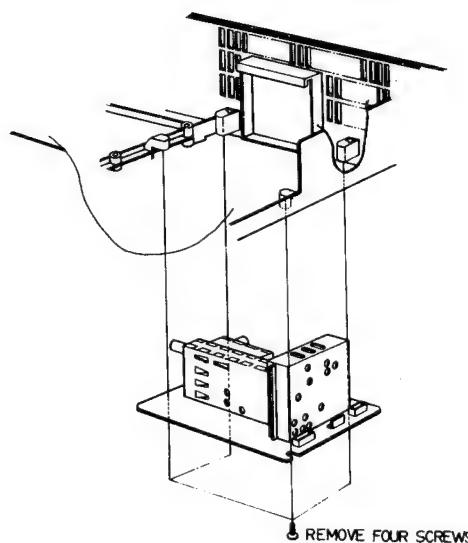


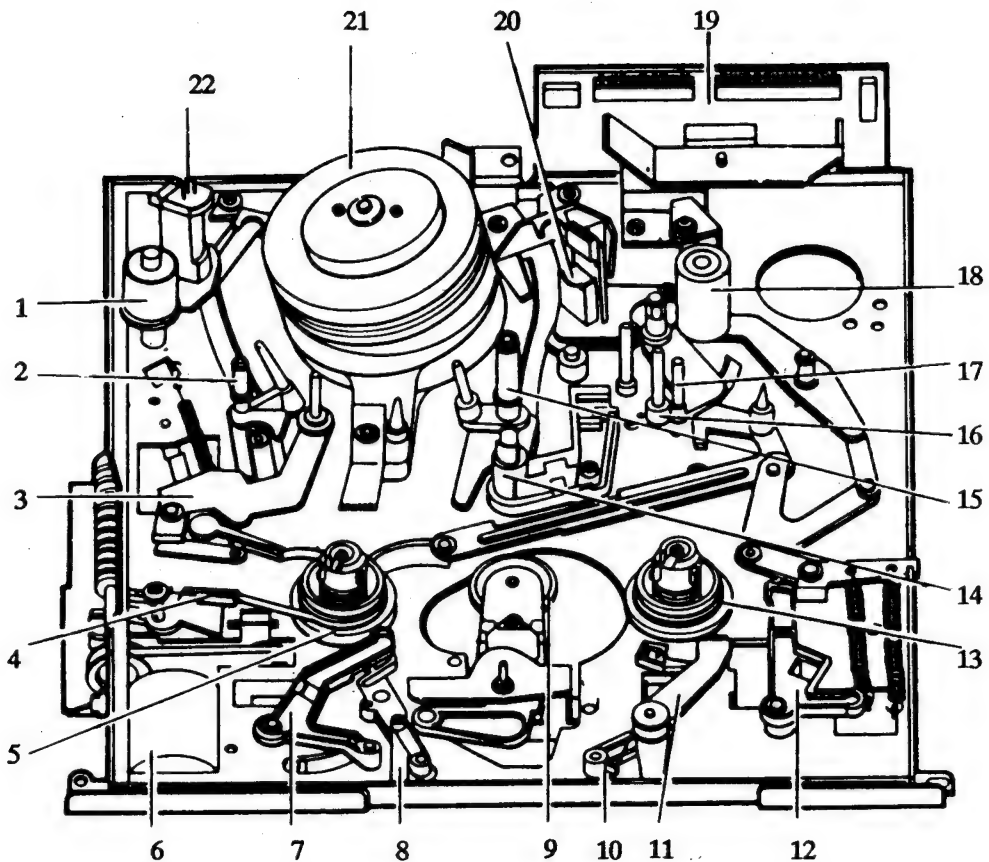
Fig.9

1. Remove the top cabinet and Regulator circuit board. (See Figs 1,8)
2. Disconnect three connectors on the Tuner circuit board.
3. Remove four screws on the Tuner board.



## 2-2.MECHANICAL DISASSEMBLY

Tape transport Mechanism Identification.  
( TOP VIEW )



- 1: ROLLER SUPPLY
- 2: GUIDE ROLLER (L)
- 3: ARM TENSION ASS'Y
- 4: TENSION BAND ASS'Y
- 5: REEL DISK (S)
- 6: LOADING MOTOR ASS'Y
- 7: BRAKE SUB (L)
- 8: BRAKE MAIN (L)
- 9: IDLER CLUTCH ASS'Y
- 10: BRAKE MAIN (R)

- 11: WEAK BRAKE (T) ASS'Y
- 12: BRAKE SUB (R)
- 13: REEL DISK (T)
- 14: HOLDER LED
- 15: GUIDE ROLLER (R)
- 16: CAPSTAN D.D MOTOR SHAFT
- 17: REVIEW ARM
- 18: PINCH ROLLER ASS'Y
- 19: DECK JOINT ASS'Y
- 20: ASS'Y A/C HEAD
- 21: DRUM ASSEMBLY
- 22: ASS'Y F/E HEAD

(BOTTOM VIEW)

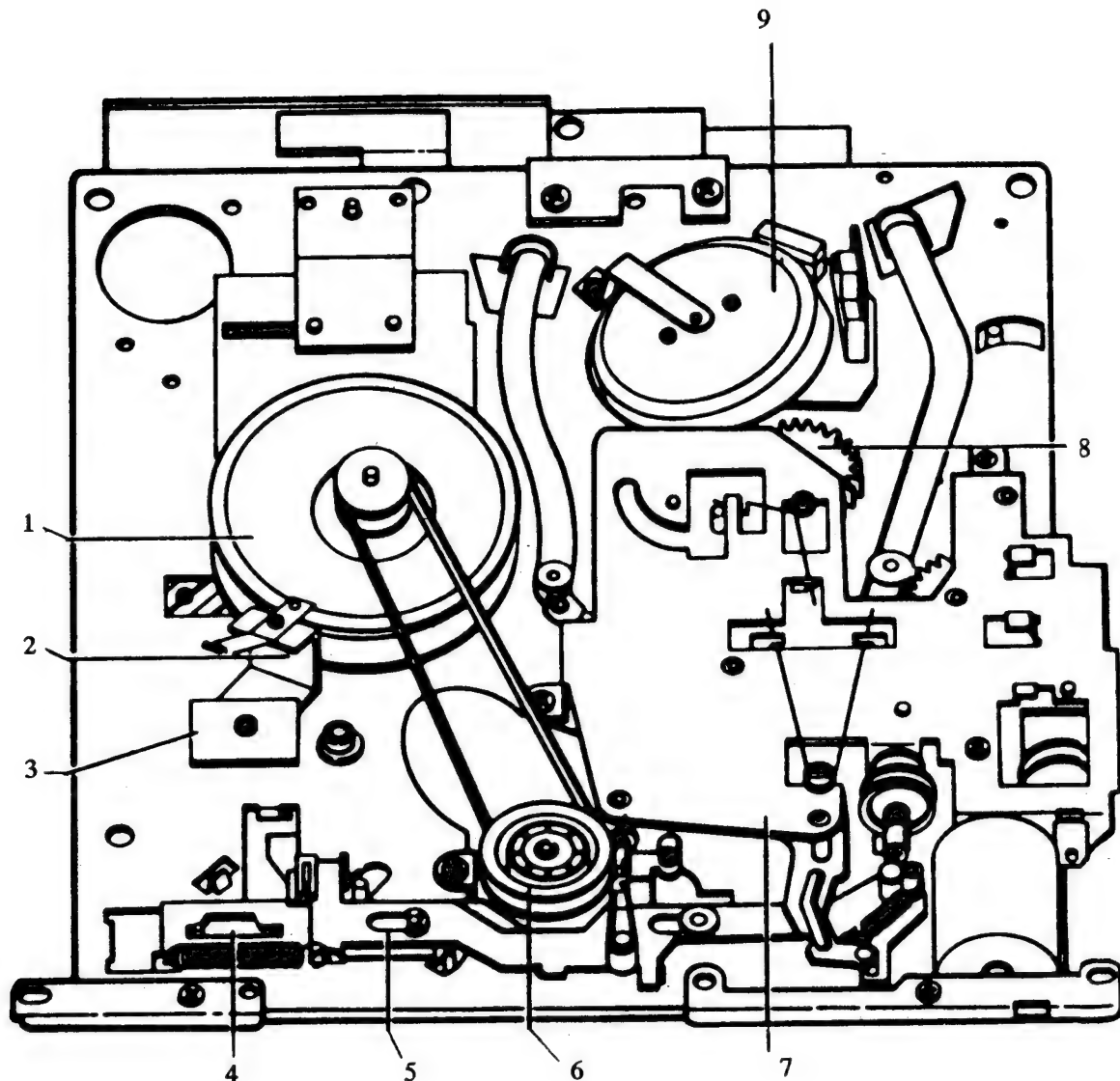


Fig 10

- 1: CAPSTAN D.D MOTOR
- 2: BRACKET PHOTOIN
- 3: REEL PCB
- 4: PLATE MAIN SLIDE
- 5: I.B SLIDE ASSEMBLY

- 6: IDLER BELT
- 7: LOADING MOTOR ASSEMBLY
- 8: ASSEMBLY GEAR LOADING (L)
- 9: MOTOR DRUM

## 2-2-1. Housing Assembly Removal

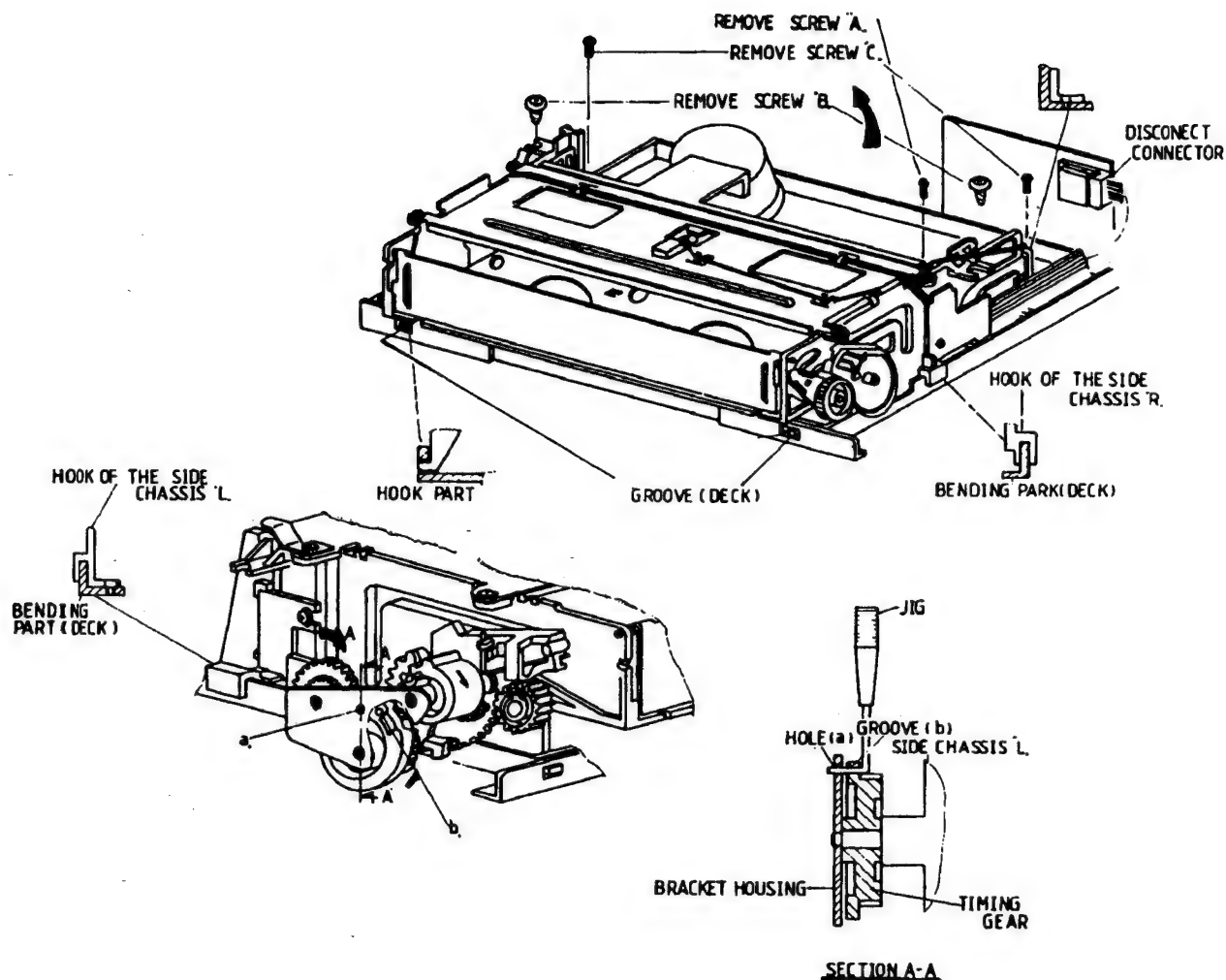


Fig.12

1. Follow the procedure for removing the panels.  
(See Figs1 to 3)
2. Disconnect the connector(CN0204) from P C B Deck Joint board.
3. Remove the two screws A.
4. Remove the three screws B and C to release ground.
5. Lift the rear of the housing assembly toward arrow mark.

### Note:

\* When reinstalling housing assembly to the deck, first insert the hook part of the housing ass'y into the groove of the deck. Second fit the hook of the side chassis(R)(L) to the bent part of the deck.

\* Before reinstalling screws, check assembling point of the timing gear and arm gear, rotating the worm gear to the direction of arrow A.

A) Assembling point is the point that the hole of the gear holder plate corresponds to the groove of the timing gear as in Fig 12/A-A'.

B) If the assembling point is not correct .Ass'y will not operate smoothly or jam.

## 2-2-2. Housing Assembly Identification

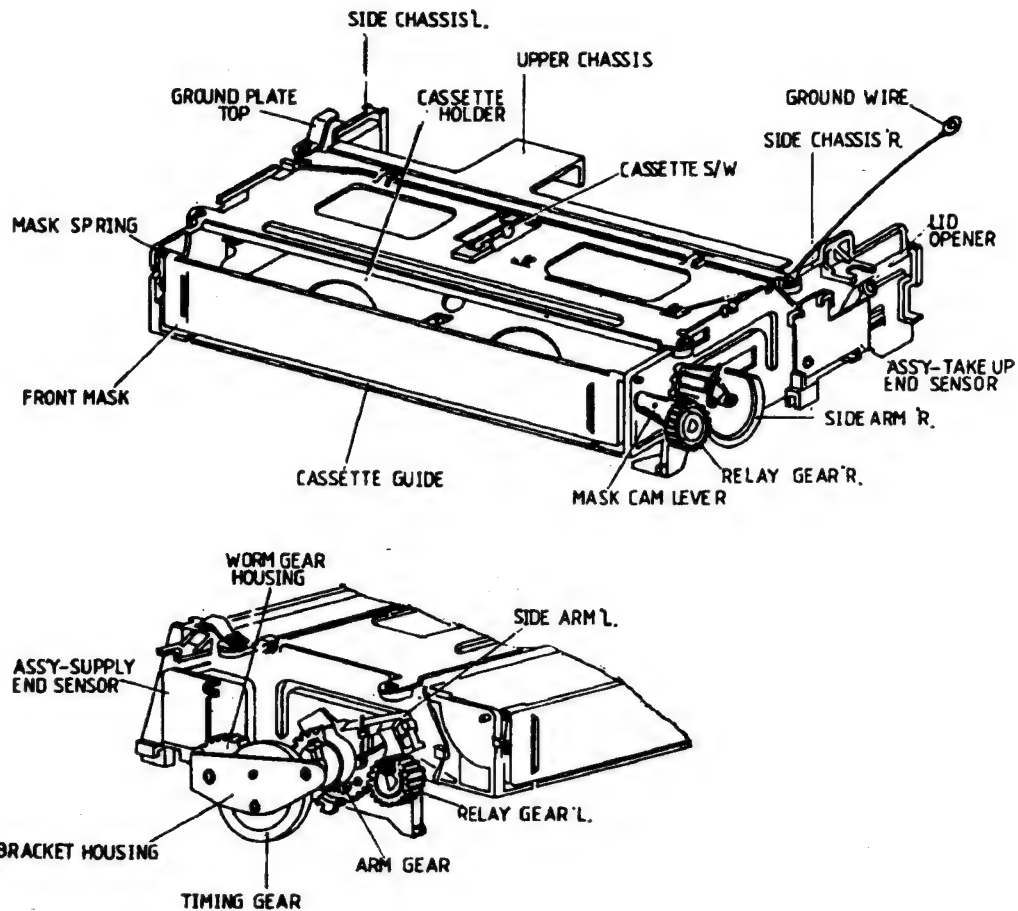


Fig.13

## 2-2-3. Housing Assembly Disassembly

### 1. Front mask removal.

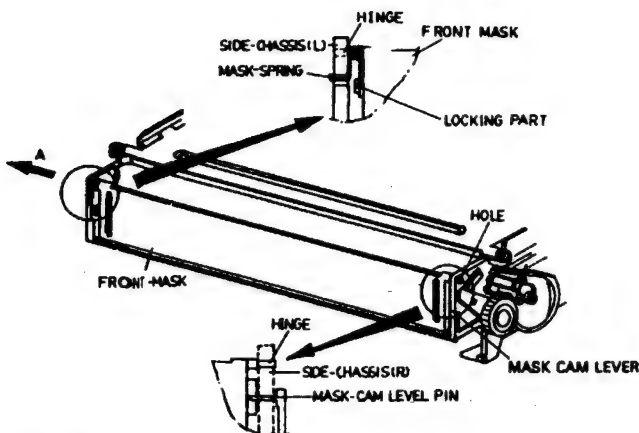


Fig.14

\* Pull front mask in the direction of arrow A, release front mask hinge part from the hole in the side-chassis (R) and release hinge part in the hole in the side-chassis(L) release in the reverse direction.

2. Rec S/W Cassette S/W PCB Start Sensor Removal.  
Release REC S/W attached to the cassetteguide.

#### Note:

\* One end of the mask spring must be reinstalled in the lock part of the front mask and the other end must be reinstalled in the hook part of the side chassis(L).

\* Upon reinstallation of the front mask slide, lever pin of the mask cam in the side-chassis(R) must be reinstalled. (Ref.Fig14).

#### \* Cassette Switch Removal.

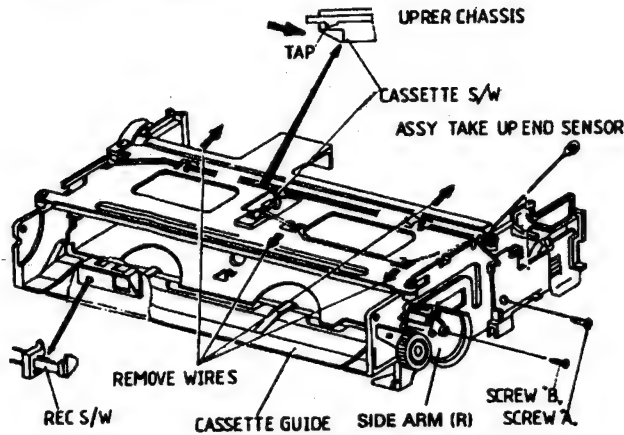


Fig.15

- 1). Release the tap of the cassette S/W and remove. (Fig 15)
- 2). Remove the screw of the start sensor PCB removal. (Fig.15)
- 3). Remove the wires. (Fig.15)
- 4). After removing the lid opener spring, remove the lid opener pulling the locking part in the direction of the arrow. (Fig.17)

#### 3. Supply End Sensor Ass'y Removal.

\* After removing the screw at the side chassis(L), remove PCB end sensor.

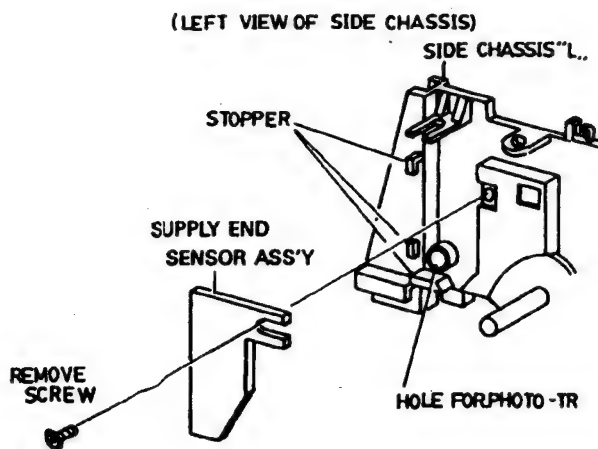


Fig.16

#### Note:

Be careful not to damage the TR and Photo TR attached to the supply End sensor Ass'y.

#### 4. Lid Opener Removal

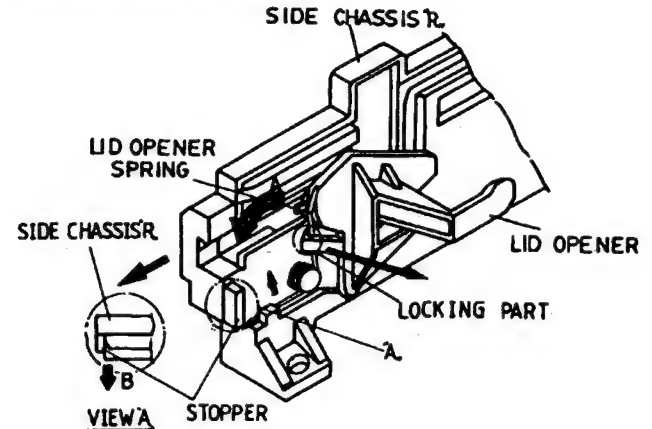


Fig.17

\* Remove the lid opener spring from the locking part of the lid opener.

\* Pull the lid opener in the direction A. and release the locking part pulling it in the direction B (Refer to view A)

#### 5. Timing Gear, Side Arm (L) Assy & Worm Gear Housing Removal

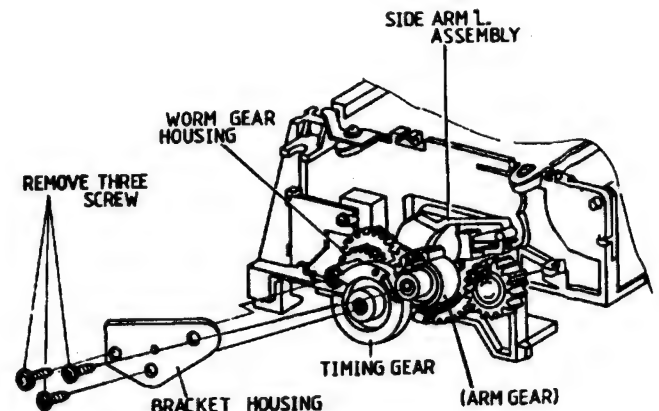


fig.18

- 1). Remove the three screws from the housing bracket. (Fig.18) (Remove the ground wire)
- 2). Remove the timing gear and the side arm(L) assembly and the worm gear housing.

#### Note:

Upon reinstallation, check to see if the shaft (R) and (L) of the cassette holder is inserted at the home position of side arm(R) and (L).



## 6. Side Arm (R) and (L) Reinstallation

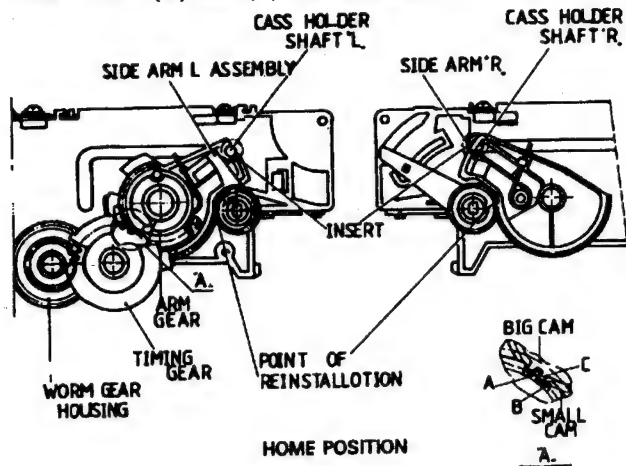


Fig.19

## 7. Upper Chassis Removal.

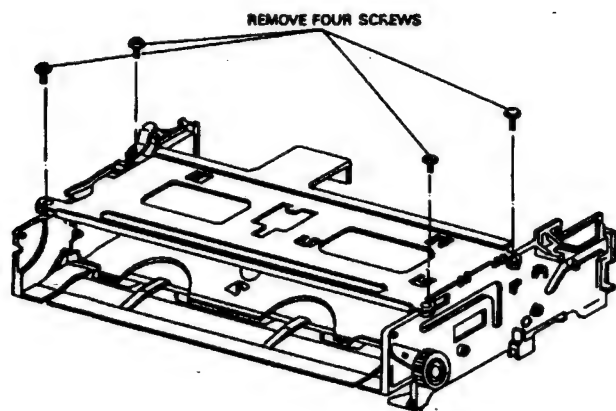


Fig.20

After removing four screws, pull the upper chassis upward to remove. (Fig. 20)

- 1). Release the eject spring .
- 2). Remove the arm gear.
- 3). Release the tension spring L.

## 8. Side Arm(L) Assembly Removal.

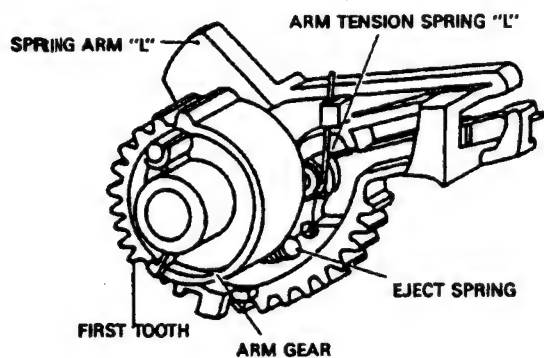


Fig.21

## 2-2-4.. HOW TO ASSEMBLE CASSETTE HOUSING

### 2-2-4-1. Without Jig for Assembling

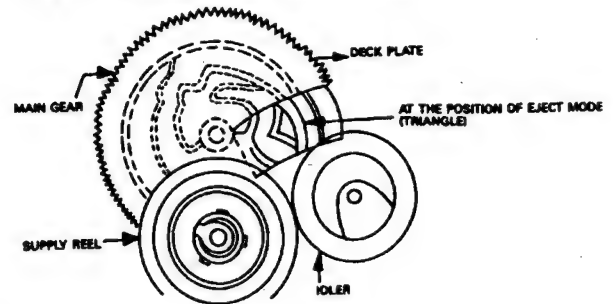


Fig.22

1. Before assembling the cassette housing, eject loading gear completely.
- 2.. Make certain the main gear of the loading motor is at the eject position as Fig.22.
3. As shown Fig .23, rotate the worm gear housing of cassette housing in the direction of the arrow, until the rotation comes to stop.

\* Check the movement of the front loading mechanism, it should move freely from the eject to the cassette load position. If not the worm gear housing is in the wrong position.

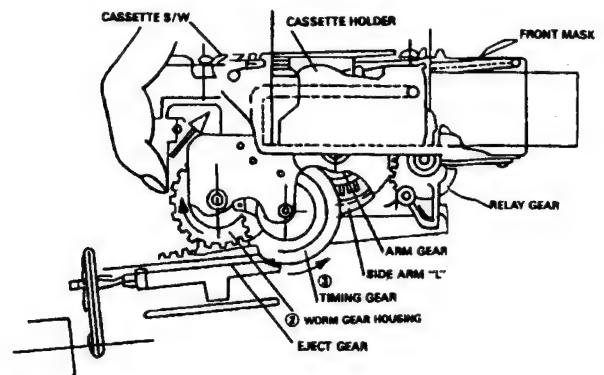


Fig 23

If the cassette tape does not come out in the eject mode, assembling of gears(2) and (3) is not correct , reassemble the cassette housing.

### 2-2-4-2. With Jig for Assembling

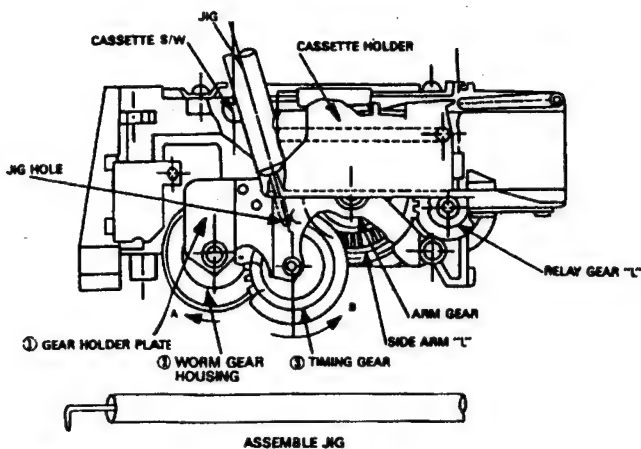


Fig.24

As shown in Fig.24, rotate the timing gear (3) and worm gear housing (2) to the direction of A and B, Aligned the hole of gear holder plate (1) and timing gear (3) and then insert the assembly jig in the hole to set-up the deck.

### 2-2-5. Mechanical Chassis Assembly Removal.

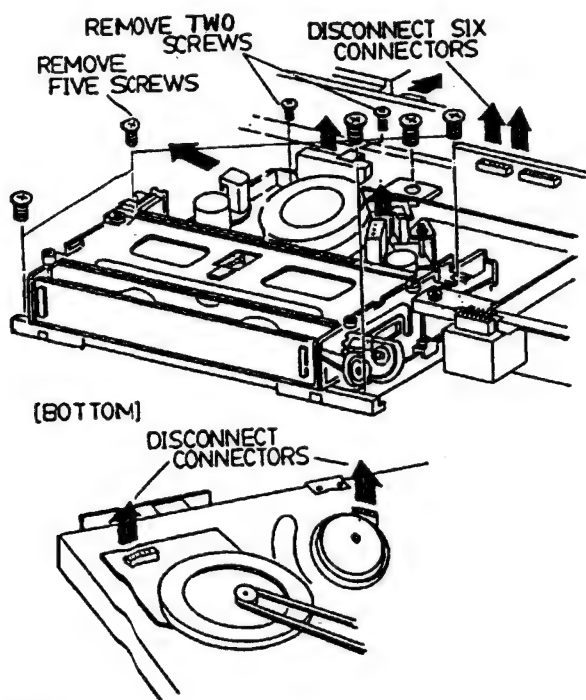


Fig.25

1. Remove the Panels. (See Fig. 1 to 3)
2. Disconnect the six connectors.  
(four on top, two on bottom)
3. Remove the two screws and pull the video head pre-amp ass'y assembly upward to remove.
4. Remove a ground straps from bottom.
5. Remove the five screws and pull the mechanism chassis assembly upward to remove

### 2-2-6. Video Head (Upper Drum) Removal and Drum Motor Assembly Removal.

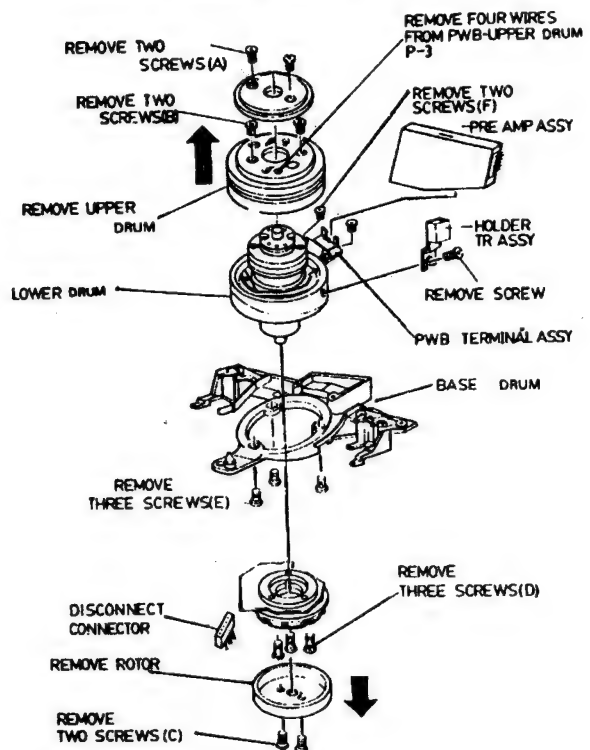


Fig.26

#### Note:

Take extreme care when removing the upper drum. Do not touch the video head tips (located in the upper drum) during servicing.

\* Follow the procedure for removing

1. Remove the top cabinet. (See Fig. 1)
2. Remove the bottom cover. (See Fig. 2)
3. Remove two (A) screws holding the upper drum cover.
4. Remove four wires soldered to PWB-Upper Drum P-3.  
Note: Upon reinstallation, connect four wires to wires of the same color which are soldered PWB-upper drum P-3.
5. Remove two (B) screws on the upper drum.
6. Lift up the upper drum in the direction of the arrow.
7. Remove video head pre-Amp ass'y two screws.
8. Remove two (C) screws holding the fly wheel.  
Note: Before removing flywheel mark position.
9. Disconnect connector (CN004) from the drum motor.
10. Remove three screws (D) holding the drum motor.

\* When it is necessary to remove lower drum, remove three screws (E) and lift up the lower drum assembly in the direction of the arrow.

#### Note:

Upon reinstallation, alternately tighten the two screws holding upper drum and perform the following adjustments.

\* Tracking preset adjustment.

\* A/C head horizontal position adjustment (X-Point Adj).

## 2-2-7. Full Erase(F/E) Head & Supply Roller Removal

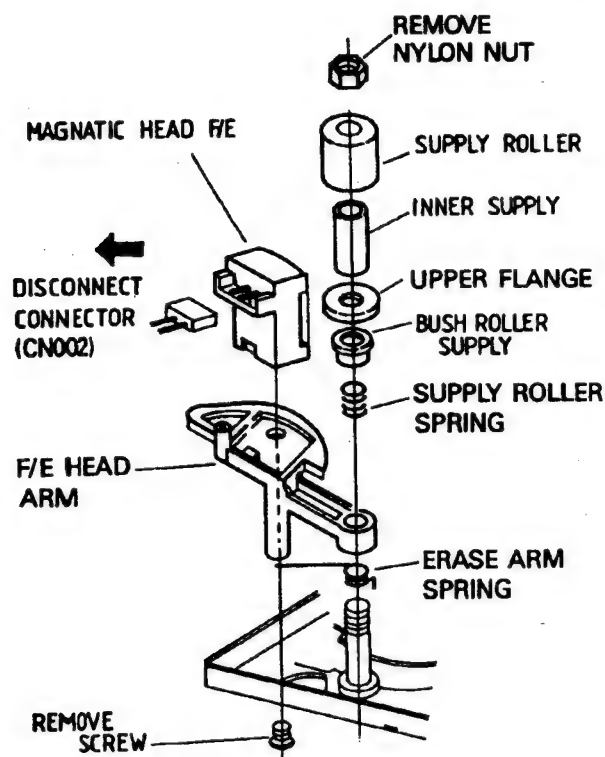


Fig.27

1. Remove the top cabinet. (See Fig.1)
2. Disconnect the connector (CN002) from the F/E head.
3. Remove the nut at the top of the supply roller and remove the supply roller, inner supply, upper flange, supply roller bush.
4. Remove the supply roller spring.
5. Pull the F/E head arm upward to remove.
6. Remove the screw holding the F/E head.
7. Pull the erase head arm spring from the hole upward and remove.
8. After replacing or reinstalling the F/E head, clean each tape contact surface of the F/E head and supply roller.

### Note;

Upon reinstallation, turn the nylon nut firmly (fix type).

## 2-2-8. Audio / Control (A/C) Head Removal

1. Remove the top cabinet. (See Fig. 1)
2. Disconnect the connector (CN005) from the A/C head.
3. Remove the hex nut holding the A/C head holder and remove the plain washer.
4. Pull the A/C head assembly upward to remove.
5. Remove screw (A) and spring (A).
6. Remove screw (B) and remove A/C head assembly.
7. After replacing or reinstalling the A/C head assembly holder, clean the tape contact surface of the head.

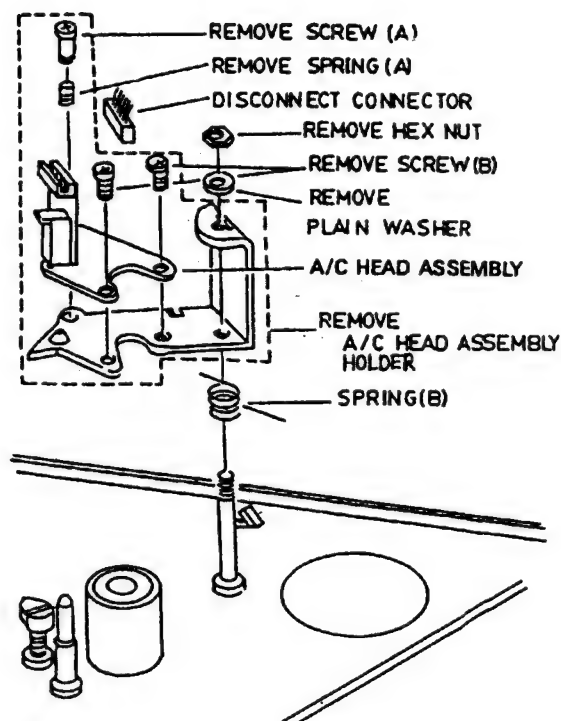


Fig.28

### Note:

Upon reinstallation, hook the spring between A/C head base and mechanism chassis.

After installing the A/C head assembly holder, perform the following adjustments.

- 1) A/C Head Height, Tilt and Azimuth Adjustments.
- 2) A/C Head Horizontal Position Adjustment (X-Point).
- 3) Audio Playback Gain Adjustment.
- 4) Audio Bias Level Adjustment.

\* Audio head height must be performed before A/C head horizontal position adjustment is performed.

\* If audio head height is adjust, the A/C head horizontal position must be readjusted.

\* After completion of the A/C head position adjustment, the A/C head base must be positioned at approximately the center of the X-Point nut adjust.

## 2-2-9. Loading Motor Assembly Removal

1. Remove the top cabinet. (See Fig. 1)
2. Remove the bottom cover. (See Fig. 2)
3. Remove the mechanism chassis assembly. (See Fig. 25)
4. Remove the housing assembly. (See Fig. 12)
5. Remove the slit washer.
6. Remove the two connectors.
7. Release the spring (Loading pin side first).
8. Remove the three screws and pull the loading motor assembly upward in the direction of the arrow (A).

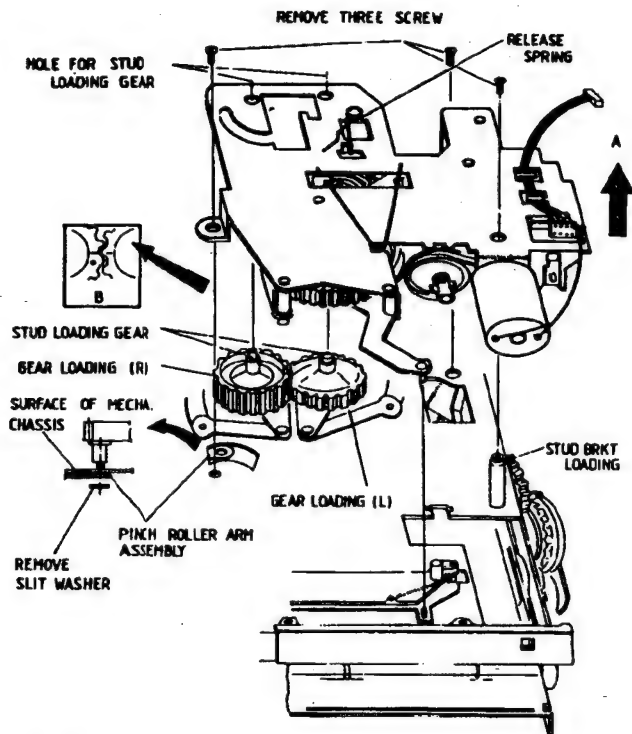


Fig.29

**Note**

Upon reinstallation, be sure the marks on the gear loading (L), (R) are positioned in line (See B).

**2-2-10. Tension Arm Assembly, Tension Band Assembly Removal**

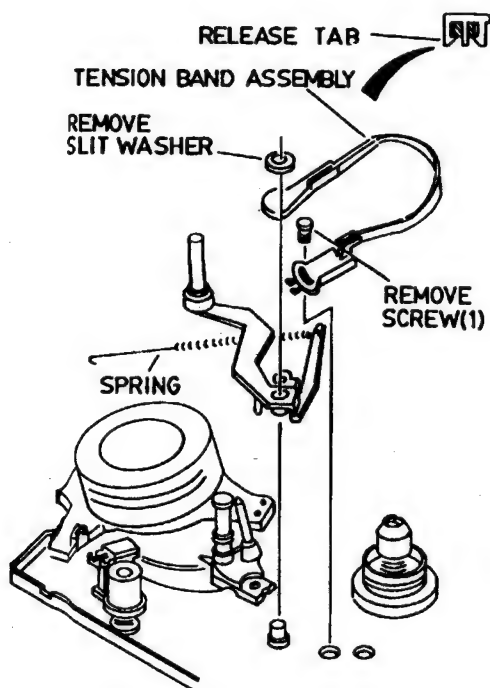


Fig.30

1. Remove the screw holding the tension band assembly.
2. Remove the spring hooked on the chassis.
3. Remove the slit washers and pull the arm tension assembly upward.
4. Release the tab holding the tension band assembly.

**Note**

Confirm back tension after reinstalling.

**2-2-11. Brake Sub (R) Assembly and Brake Sub (L) Assembly Removal**

1. Follow the procedures for removing the panels. (See Figs. 1 to 3)
2. Remove the housing assembly. (See Fig. 12)
3. Remove the two slit washers and release the sub brake (R) spring.
4. Release the tabs holding the brake Sub (R) assembly and brake sub (L) assembly.

**Note**

Take care when removing spring.

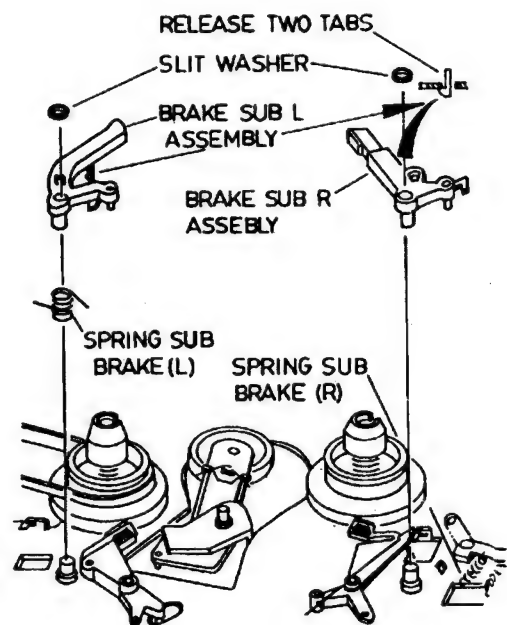


Fig.31

### 2-2-12. Brake Main (L) Assembly and Brake Main (R) Assembly Removal

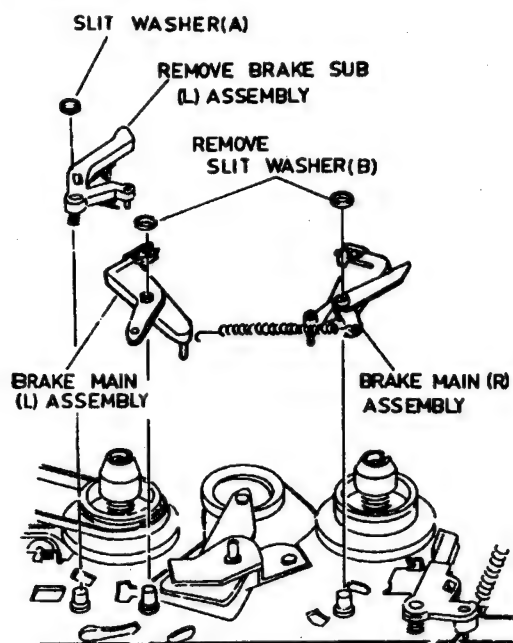


Fig.32

1. Follow the procedures for removing the panels. (See Figs. 1 to 3)
2. Remove the housing assembly. (See Fig. 12)
3. Remove the brake sub (L) assembly. (See Fig. 28)
4. Remove the two slit washers.
5. Release the spring hooks on the brake main assemblies.

### 2-2-13. D.D Capstan Motor Removal

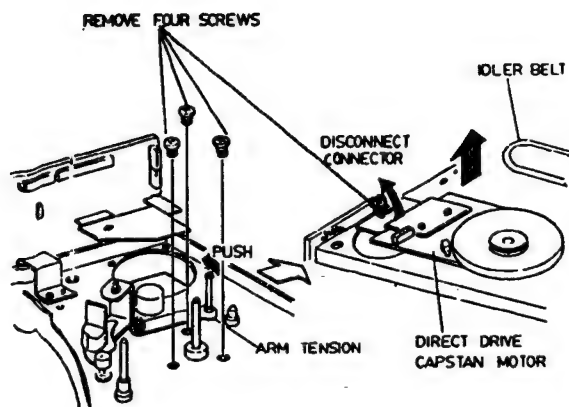


Fig.33

1. Remove the top cabinet. (See Fig. 1)
2. Remove the bottom cover. (See Fig. 2)
3. Release the idler belt and disconnect connector from D.D capstan motor.
4. Remove four screws.
5. Push the review arm assembly, remove four screws.

### 2-2-14. Assembly Gear Loading (L)(R) Removal

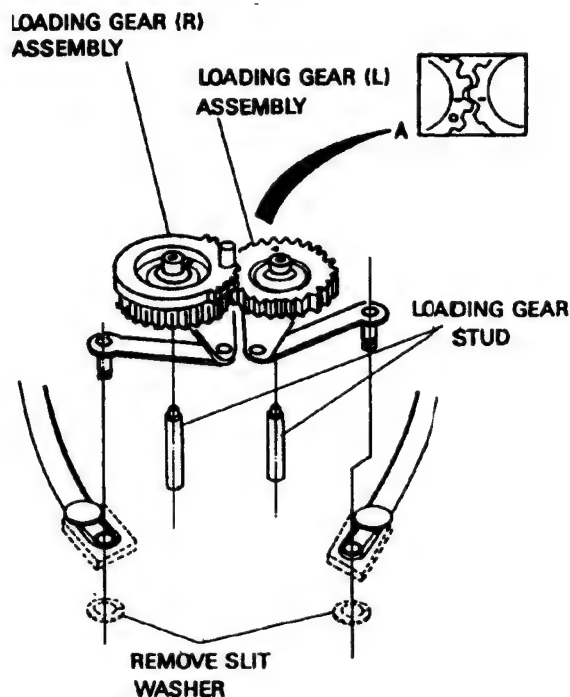


Fig.34

1. Follow the procedures for removing the panels. (See Figs. 1 to 3)
2. Remove mechanism chassis assembly. (See Fig. 22)
3. Remove the housing assembly. (See Fig. 12)
4. Remove the loading motor assembly. (See Fig. 29)
5. Remove the slit washer holding on the loading arm assembly.

#### Note

Place gears in the unloaded position upon reinstallation, be sure the marks on the gear loading (L)(R) are positioned in line. (See. A)

### 2-2-15. Guide Roller Assembly Removal

1. Remove the top and the bottom cover. (See Figs. 1,2)
2. Loosen each set screw at the pole base assembly.
3. Turn the guide roller assemblies counterclockwise.
4. After replacing or reinstalling the guide roller assemblies, clean each tape contact surface of the guide roller assemblies.

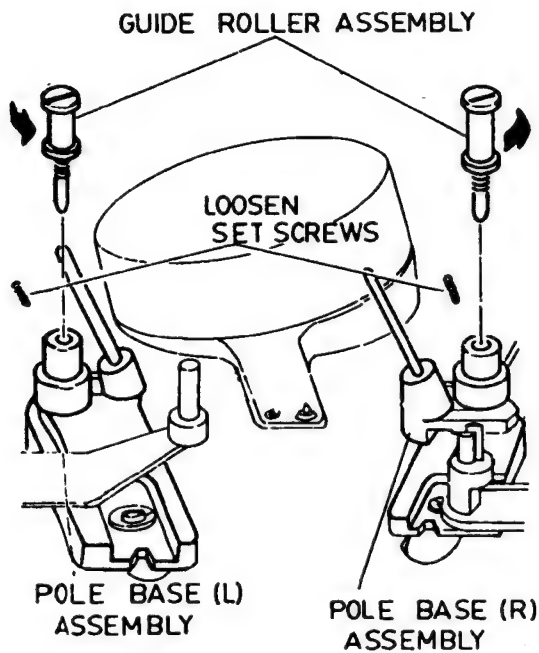


Fig.35

**Note**

Upon reinstallation, perform the guide roller assemblies adjustment.

**2-2-16. Reel Disk (S) Assembly Removal**

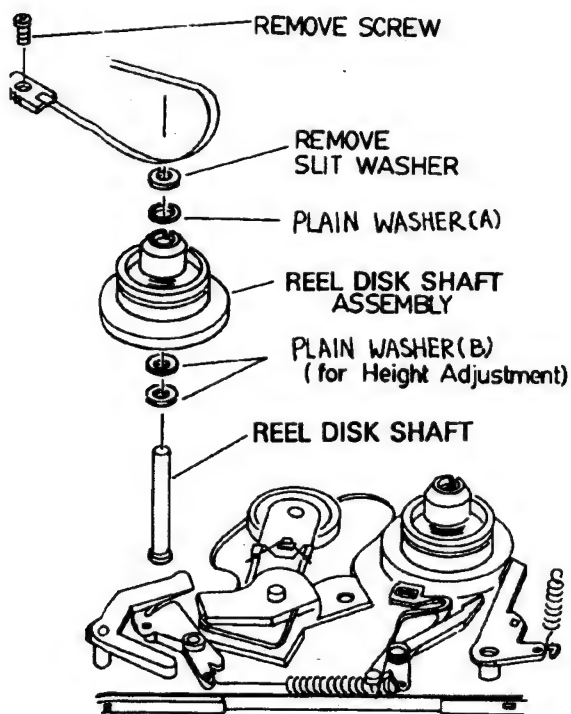


Fig.36

1. Remove the top and bottom cover. (See Figs. 1,2)

2. Remove the housing assembly. (See Fig. 12)
3. Remove the screw holding the tension band assembly.
4. Remove the slit washer from the reel disk shaft.
5. Remove the plain washer (A).

**Note**

Do not remove the plain washer (B) under the reel disk (S) assembly.

**2-2-17. Reel Disk (T) Assembly Removal.**

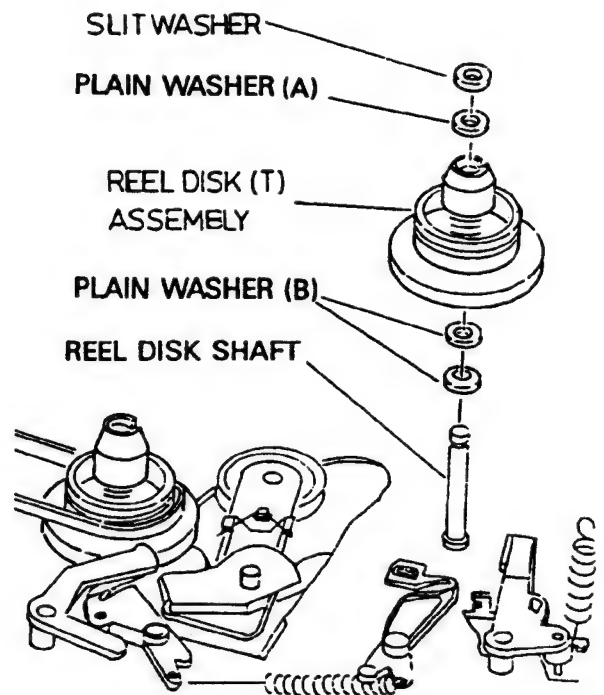


Fig.37

1. Remove the top and bottom cover. (See Figs. 1,2)
2. Remove the housing assembly. (See Fig. 12)
3. Remove the slit washer from the reel disk shaft.
4. Remove the plain washer (A) and pull the reel disk (T) assembly upward.

**Note:**

Do not remove the washer plain(B) under the reel disk (T) assembly.

**2-2-18. Pinch Roller Assembly and Pinch Roller Arm Assembly Removal.**

1. Follow the procedures for removing the panels. (See Fig. 1 to 2)
2. Remove the housing assembly. (See Fig.12)
3. Remove the screw holding the pinch roller assembly.
4. Remove the ring-E.
5. Remove the slit washer(A) and slit washer(B).
6. Release the spring (A) and the spring(B).

7. Pull the pinch roller arm assembly upward (arrow mark direction ) to remove.

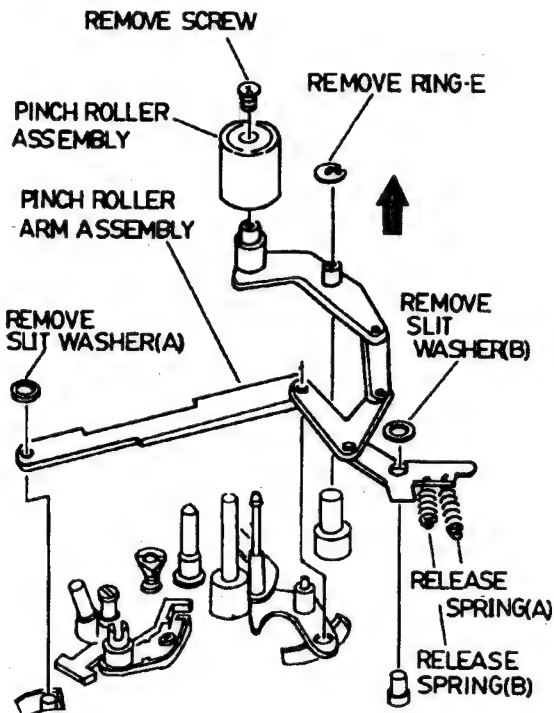


Fig.38

#### 2-2-19.Assembly Holder LED Removal.

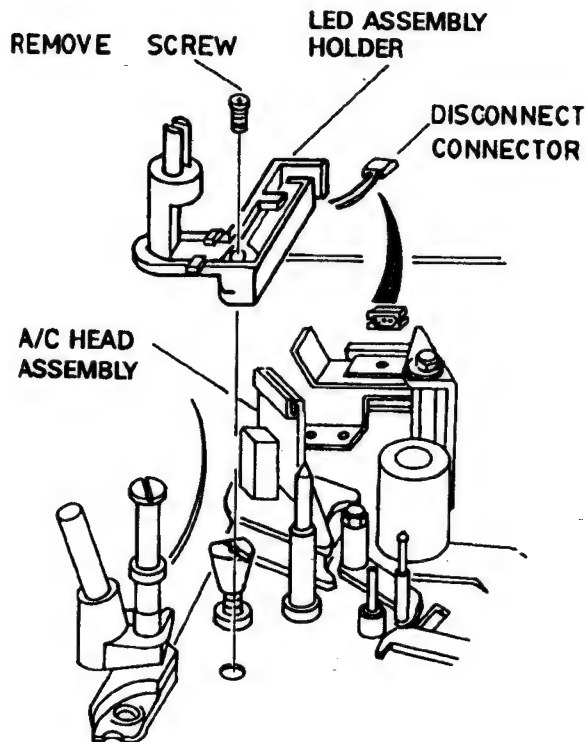


Fig.39

1. Follow the procedures for removing the panels. (See Fig.1)
2. Remove the housing assembly. (See Fig.12)
3. Disconnect the connector.
4. Remove screw and the LED assembly holder upward to remove.

#### 2-2-20. Review Arm Assembly Removal.

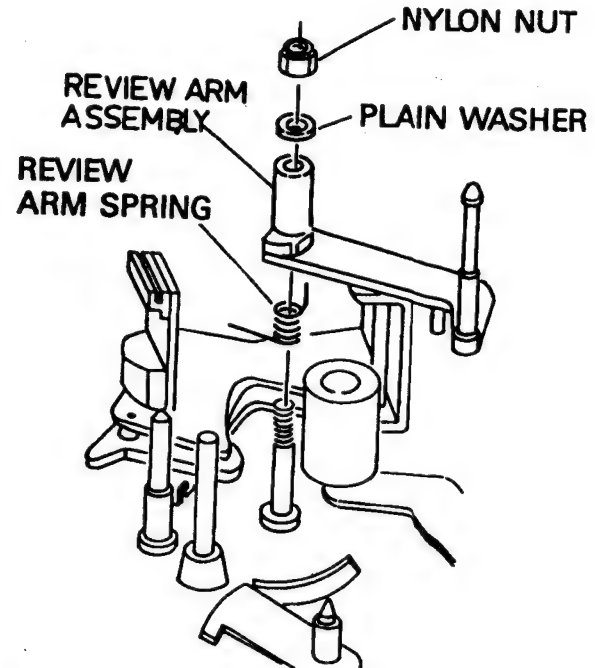


Fig.40

1. Remove the top cabinet.(See Fig. 1)
2. Remove nylon nut and plain washer.
3. Release review arm spring.
4. Pull the review arm assembly upward to remove.

#### Note:

After replacing or reinstalling the review arm assembly clean the tape contact surface of the review arm assembly and perform the review arm assembly adjustment.

#### 2-2-21. Drum assembly Removal.

1. Follow the procedures for removing the panels. (See Figs. 1 to 2)
2. Remove the video head pre Amp assembly.(Fig. 46)
3. Disconnect the two connectors(CN004,CN101).
4. Remove the three screws.



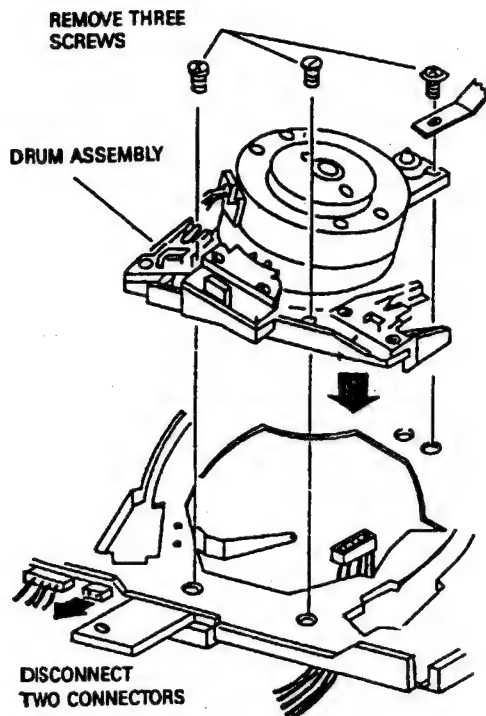


Fig.41

#### 2-2-22. Assembly Photo Interrupter Removal.

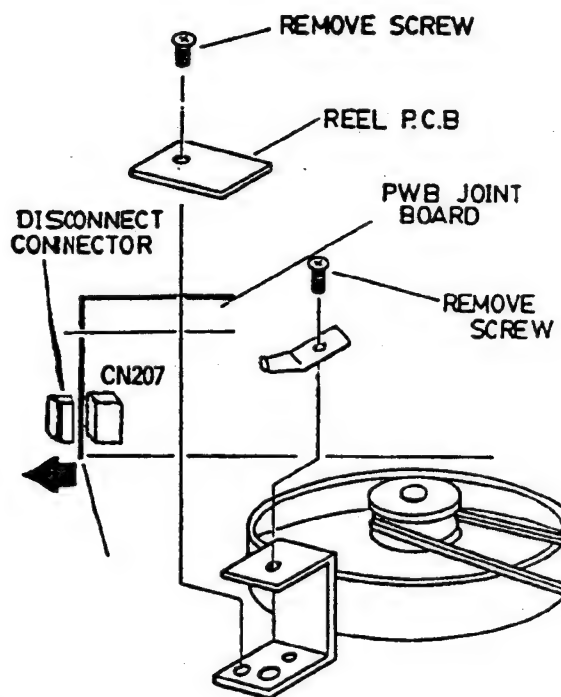


Fig.42

1. Remove the top and bottom cover. (See Figs. 1, 2)
2. Disconnect the connector (CN207).
3. Remove the screw.

#### 2-2-23. I. B Slide Assembly and Plate Main Slide Removal.

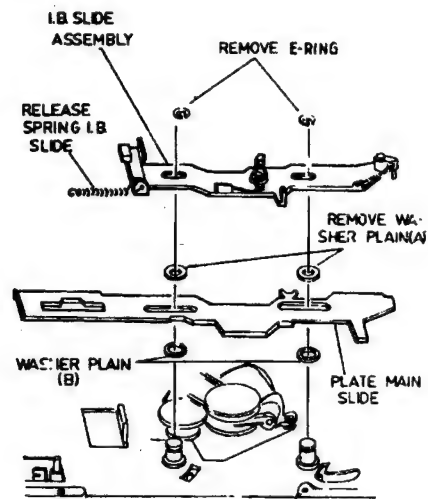


Fig.43

1. Follow the procedures for removing the panels. (See Figs. 1 to 3)
2. Remove the mechanism chassis assembly. (See Fig.25)
3. Remove the loading motor assembly. (See Fig.29)
4. Remove two ring-E washers and release spring I.B slide upward to remove.

#### Note:

Do not remove the plain washer (B) under the plate main slide.

\* I. B :Idler Break

#### 2-2-24. Idler Clutch Assembly Removal.

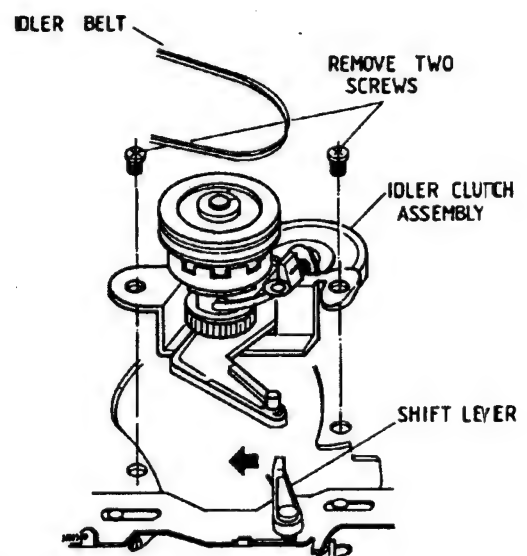


Fig.44

1. Remove the bottom cover. ( See Fig.2)
2. Release the idler belt and remove the two screws.
3. Pull the idler clutch assembly upward to remove, at the same time push the shift lever about 5-10mm.









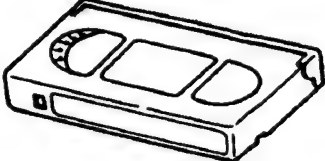
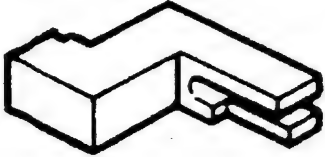

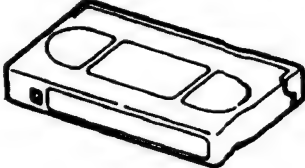

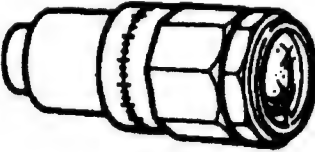
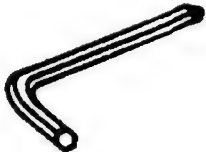
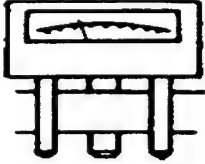




### 3.MECHANICAL ADJUSTMENTS

#### 3-1. MECHANICAL ADJUSTMENT TOOLS

JIG ITEM	CODE NO	SPECIFICATION	DESCRIPTION	SKETCH NO
TORQUE HEAD GAUGE	SSJ-1001B	LONG	This gauge is used to check and adjust the torque of Take up/Supply Reel.	A
MASTER PLANE & REEL DISK HEIGHT JIG	SSJ-1002A	G-5/6 CHASSIS	This jig is used to check the height difference between Reel Disk and Deck Plate.	B
	SSJ-1002B	G-7/8 CHASSIS		C
ADJUSTING DRIVER A  B	SSJ-1003A	COMMON	This jig is used when replacing the Cam adjust and Guide Roller.	D
	SSJ-1003B	COMMON	This jig is used when replacing the A/C Head, Supply Roller, Tape Guide and Arm Tension.	E
BACK TENSION CASSETTE GAUGE	SS-1004	COMMON	This gauge is used for Supply Reel torque alignment.	F (*)
GUIDE POLE HEIGHT ADJUSTING JIG	SSJ-1005A	G-5/6 CHASSIS	Used to adjust tape height to the Video Head.	G
	SSJ-1005B	G-7/8 CHASSIS		
DRUM REPLACEMENT JIG	SSJ-1007	COMMON	This jig is used when replacing the VCR's Upper Drum.	H
ALIGNMENT TAPE SR1-2 SR2-2 SVJ-2 HR1-2	SSJ-1014C SSJ-1014D SSJ-1014F SSJ-1014G	PAL(LION.6K) PAL(COLOR.1K) PAL(TESTING) PAL(Hi-Fi)	These tapes are used for fine electrical adjustment and tape runing system (Mecha) alignment.	I
TENSION GAUGE	SSJ-1008	300 g	This gause is used for tension measurements.	J (*)
TORQUE GAUGE	SSJ-1009	600 g	This jig is used to check and adjust the torque of Take up/Supply Reel.	K (*)

JIG ITEM	CODE NO	SPECIFICATION	DESCRIPTION	SKETCH NO
HEX WRENCH	SSJ-1010A SSJ-1010B SSJ-1010C	0.7 mm 1.2 mm 1.5 mm	These wrenches are used for locking or tightening special Hexagon type screws.	L (*)
TAPE TENSION GAUGE (TENVELO METER)	SSJ-1011	COMMON	This tape tension gauge is used for measuring the back tension of the running tape.	M (*)
CASSETTE HOUSING ASSEMBLY JIG	SSJ-1012	COMMON	This jig used for cassette housing assembly.	N
BOXER DRIVER	SSJ-1015	COMMON	This tool is used for replacing the A/C Head.	O (*)
DENTAL MIRROR	SSJ-1016	COMMON	This tool is used for tape transport system check.	P (*)
ADJUSTING DRIVER	SSJ-1017	COMMON	This tool is used for electrical adjustment.	Q (*)

(\*) : These Jigs are not supplied from SAMSUNG.

A	B	C
	 	  
D	E	F
		
G	H	I
		
J	K	L
		
M	N	O
		
P	Q	
		

### 3-2. Reel Disk Heights

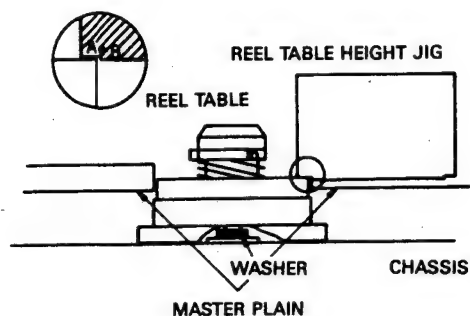


Fig.1

The height of the supply and take-up turntables should be the same,  $+0.2/-0.2$ mm. Turntable heights are adjusted by changing plain washer stack under each turntable. Check turntable heights by installing the Master Plain. Set the reel disk height jig in place and check the height of the supply and take up turntables. (See Fig. 1) The size of washer is 0.5mm (3.2 mm ID). This washer should be used to achieve equal reference heights for both turntables.

#### Note:

For proper height point "A" should slide over the reel disk and point "B" should not. (Fig. 1)

### 3-3. Back Tension Adjustment (Fig. 2)

BACK TENSION METER

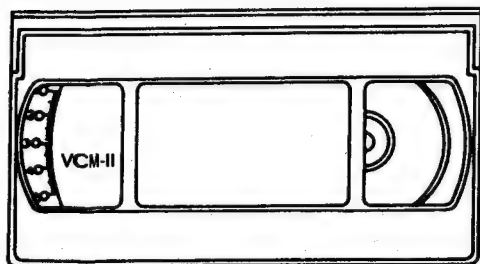


Fig.2

When the back tension is properly adjusted, the service test tape recorded will play back with minimum skew error-picture displacement in line following head switching. The tension is set as follows

1. Load the VCR with the back tension adjustment tape.
2. Place the VCR in the "play" mode.
3. Read the scale on the reel disk(S).
4. This reading should be between 39.5 and 44.5
5. After loosening the screw, move the Fig 3 tension spring in direction "B", If the tension adjustment tape reads 45 or higher, in direction "A" when it is 39 or lower, and adjust the back tension for a nominal reading of 42 on the scale.

6. Recheck the arm tension position when the back tension is changed (6 or more).

#### Note:

The VCR must be in a horizontal position for this adjustment.

### 3-4. Arm Tension Position Adjustment (Fig. 3)

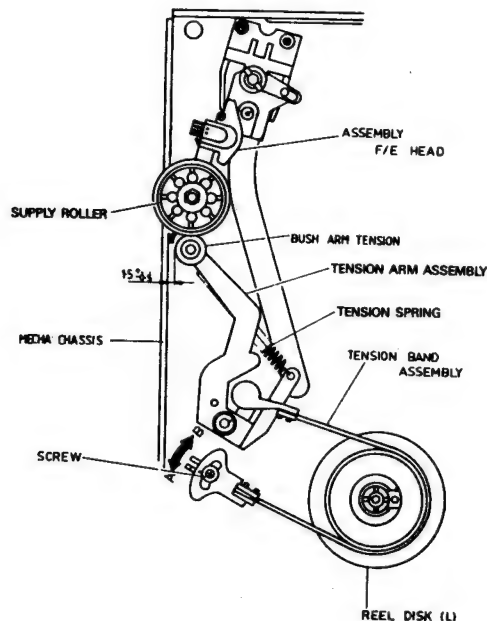


Fig.3

1. After removing the housing assembly, momentarily short the tenth pin of the deck joint. P.C.Board's connector CN 205 to ground.
2. Place the instrument in the "play" mode.
3. After loading is complete, loosen the screw holding the tension holder. A and adjust so that the clearance between lower edge of tension pole ass'y and chassis is  $1.5\text{mm} \pm 0.5\text{mm}$ .
4. Tighten screw to secure adjustment.

### 3-5. Brake Torque Confirmation

1. Remove top cover and place VCR in the "stop" mode.
2. Clean the brake surfaces on turntables using "cloth" and solvent, before measuring torque.
3. Attach the torque gauge head to the torque gauge.
4. Place torque gauge on the reel disk (S) turntable.
5. Turn torque gauge in a clockwise direction until the brake begins slipping. Maintain "slipping" rotation and read torque. (torque reading should be more than 200 grams/cm)
6. Repeat for the take up side turning the torque gauge counterclockwise. (reading should be more than 200 grams/cm)

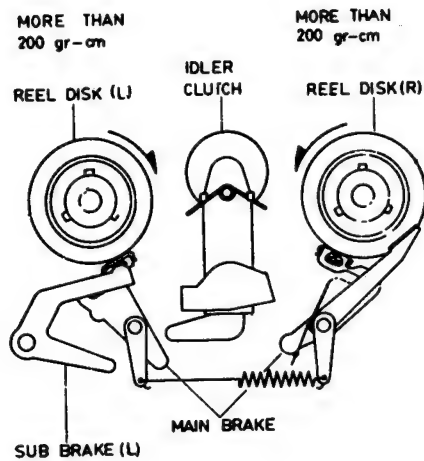


Fig.4

**Note:**

Brake torque problems can cause tape stretch, broken tape or loose tape in cassette. These symptoms can usually be corrected by properly cleaning. If not replace brakes.

**3-6. Play, Fast Forward, Rewind Torque Confirmation**

1. Place the cassette holder in the loading state without inserting a cassette tape.
2. Attach the torque gauge head to the torque gauge.
3. Place torque gauge on the reel disk (T), operate VCR in the "SP record" mode.  
(Torque should measure 150 + 30 grams/cm)
4. Press Fast Forward button.  
(Torque reading should be 600 grams/cm minimum)
5. Place torque gauge on the reel disk (S) and operate instrument in the "rewind" mode.  
(Torque reading should 600 grams/cm minimum)

**3-7. Rough Tape Travel Check**

Using a blank tape, place the VCR in "play" mode and note the following.

1. The tape should be in full contact with all tape guide posts.
2. The tape should be crease-free with no slack.
3. The supply roller should be moving freely.
4. The tape should be perpendicular to the longitudinal axis of the heads when crossing the erase head and the A/C head.
5. The tape should be centered top to bottom on the head when crossing the full erase head.
6. The tape should follow the lower-edge guide surface on the lower drum.

**3-8. Creasing or Slack Tape.**

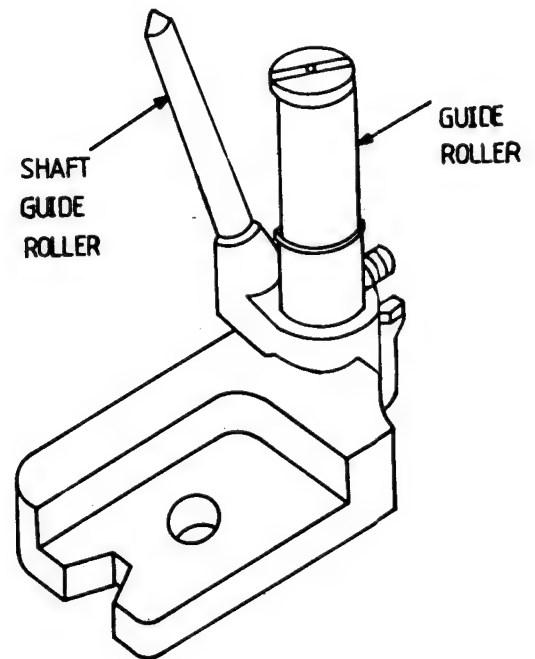


Fig.5

Load the VCR with a blank tape and place in "play" mode.

With the tape running, inspect the tape path for creasing or frilling along top or bottom edges of tape. If the tape is creasing or frilling, check the tape as it goes "on" and comes "off" the lower drum.

The tape should follow the lower edge guide surface on the drum. If the tape is high on the guide surface, rough adjust guide rollers to correct this condition. (use guide roller adjusting driver)

It will now be necessary to perform guide rollers adjustments and confirm interchangeability.

**3-9. Mechanical Interchangeability Consideration**

The tape-guide adjustments position the tape so that the prerecorded tracks on the test tape align perfectly with the scan of the video head assembly. The mechanical interchangeability adjustment procedures will insure that a tape recorded on the VHS recorder will playback properly on another machine.

Usually little or no mechanical adjustment is required after routine (head replacement) servicing. Before making any adjustments, perform the following interchangeability confirmation procedure to determine if adjustment is required. IF the video heads are replaced, it will also be necessary to confirm the PG shifter adjustment.

If major mechanical servicing was performed (tape guide replacement, etc.) perform "Rough Tape Travel Adjustment" before using test tape.

### 3-10. Interchangeability Confirmation

This confirmation check should be performed after any servicing operation that could adversely affect the tape path; i.e. Lower drum motor replacement, tape guide replacement, audio/control head replacement, etc. If unit passes this confirmation check, no tape guide adjustment is required.

#### Preliminary:

The adjustment should be performed after the tracking preset adjustment is completed.

1. Connect a channel-1 scope probe (2V/div.; 5ms/div.) to TP603 (Main-B P.C.B; H'd SW 25HZ).
2. Connect a channel-2 scope probe (10mV/div.) to TP(W35) (Main-A P.C.B; PB FM Level).
3. Play monoscope signal on test tape. (Alignment Tape SR1-1. See Jig List)
4. Adjust tracking control (VR102) for maximum FM envelope amplitude (TP-W35 signal) at center of envelope.
5. Adjust scope vertical gain control so that maximum envelope amplitude is 1.8 - 2.4 graticule divisions.
6. Turn tracking control (VR102) to the left so that maximum envelope amplitude can be graticule divisions.
7. Confirm that the minimum envelope amplitude is 0.6 graticule divisions or more. (Fig. 6)
8. Turn tracking control (VR102) to the right so that maximum envelope amplitude is 1 graticule division.
9. Confirm that the minimum envelope amplitude is 0.6 graticule division or more. (Fig 6)
10. If roading are correction, no guide roller adjustments, are necessary.
11. Set tracking control to detent (fixed) position. Adjust Control Track/Audio Head assembly position (X- value) to obtain maximum FM envelope (TP-W35 signal) at the detent position.

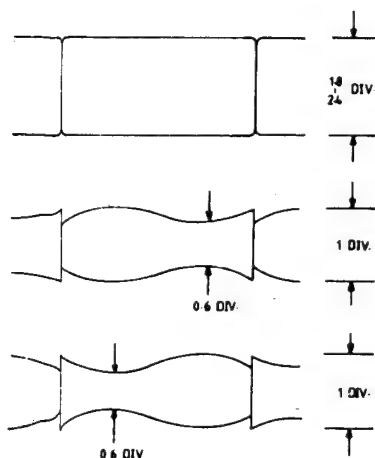


Fig.6

#### Note:

If the lower drum motor assembly has been replaced, perform the following electrical adjustments.

- \* PG Shifter adjustment.
- \* Record Chroma and Luminance Level adjustment.

### 3-11. Audio/Control Head (Height/Tilt/Azmuth)

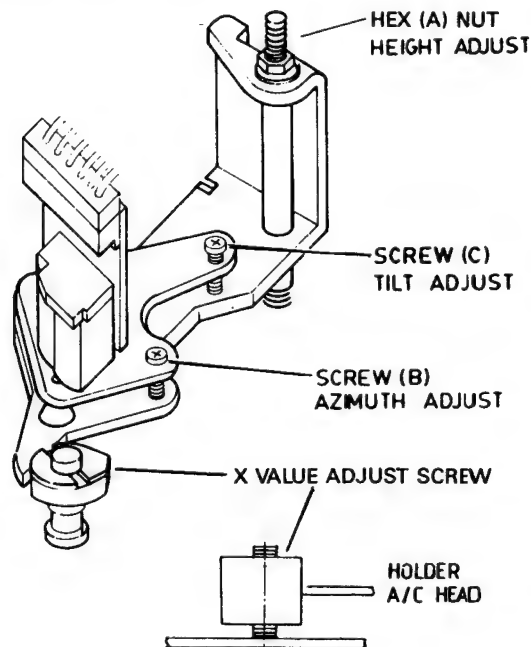


Fig.7

1. Connect a scope probe (0.5V/div.; 1ms/div.) to pin 1 of CN802 (Use audio out jack) located on the Main-C circuit board.
2. Playback a 1-KHz (color bars) audio signal on test tape. (Alignment Tape SR2-2. See Jig list)
3. Alternately adjust height screw (A) and tilt adjust screw (C) for maximum output.
4. Playback a 6-KHz audio signal on test tape (SR1-2).
5. Adjust azimuth screw (B) for maximum output.
6. Repeat steps 3 and 5 for maximum 6-KHz and 1-KHz output.
7. Lock the HEX NUT (A) with paint.

### 3-12. Guide Rollers Adjustment

1. Connect channel-1 scope probe (2V/div.; 5ms/div.) to TP603. Trigger the scope on channel-1.
2. Connect channel-2. scope probe (10mV/div.) to TP-W35 (Main-A P.C.B; PB FM Level).
3. Set tracking control to detent (fixed) position and playback test tape monoscope signal. (Alignment tape SR1-2 Ref. Jig List). Slightly loosen set screw on pole base guide rollers.
4. Adjust guide roller down using guide roller adjusting driver (CW) until bottom edge of tape slightly bows at the bottom of tape guide.

5. Monitor the head FM envelope at TP-W35.
6. Turn (CCW) guide roller (right guide) to obtain maximum amplitude at right side of head envelope.
7. Turn (CCW) guide roller (left guide) to obtain maximum amplitude at right side of head envelope.
8. Adjust tracking control (VR102) for best envelope.
9. Touch up guide rollers for maximum amplitude flat envelope. Tighten set screw at pole base of guide rollers.
10. Adjust control head position (if necessary) to move the best envelope condition to the tracking control detent position.

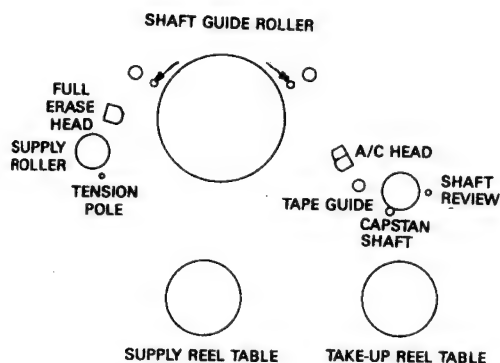


Fig.8

**Note:**

In the event correct head envelope is not obtainable, check Audio/Control (A/C) head adjustment.

**3-13. Audio/Control (A/C) Head Horizontal Position**  
(See Fig. 7)

This adjustment establishes proper tape tracking when the tracking control (VR102) is in its detent position.

1. Connect a scope probe (10mV/div.; 5ms/div.) to TP-W35 (Main-A P.C.B. ; PB FM level)
2. Set tracking control (VR102) to the detent (fixed) position
3. Playback monoscope signal on test tape.  
(Alignment tape SR1-2. See Jig list)
4. Carefully move the A/C head base plate in either direction for maximum head envelope output by adjusting the X-value screw.

**Note:**

This adjustments should only be made after the tracking preset adjustment is completed.  
(See Electrical Adjustments.)

**3-14. Operating The VCR without Inserting a Cassette Tape**

1. Remove the top cover.
2. Remove the housing assembly. (Fig. 12)
3. Plug the power cord of the VCR into the AC outlet.
4. Turn "on" the power switch of the VCR.
5. Connect a jumper to short circuit shortly between pin 10 and the pin 6 of connector.
6. The above procedure enables the VCR to be operated without loading a cassette tape.

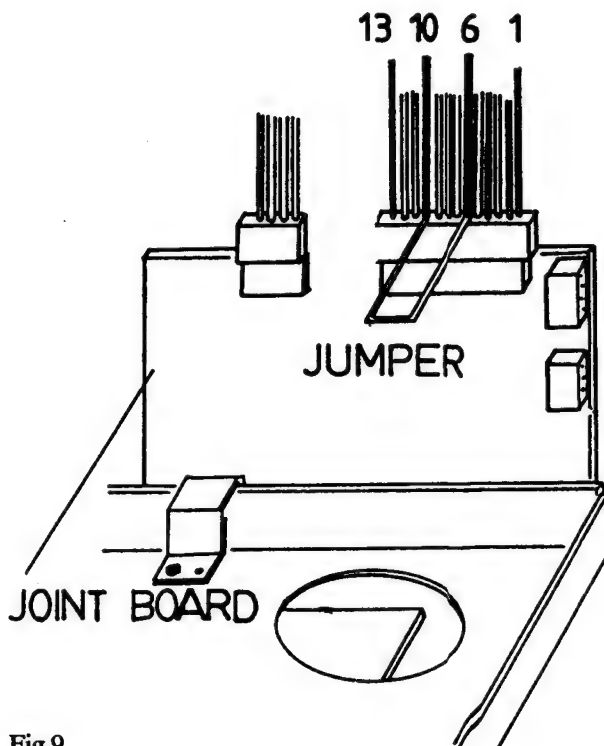


Fig.9



## 4. ELECTRICAL ADJUSTMENTS

### 4-1. CIRCUIT BOARD LOCATION AND IDENTIFICATION

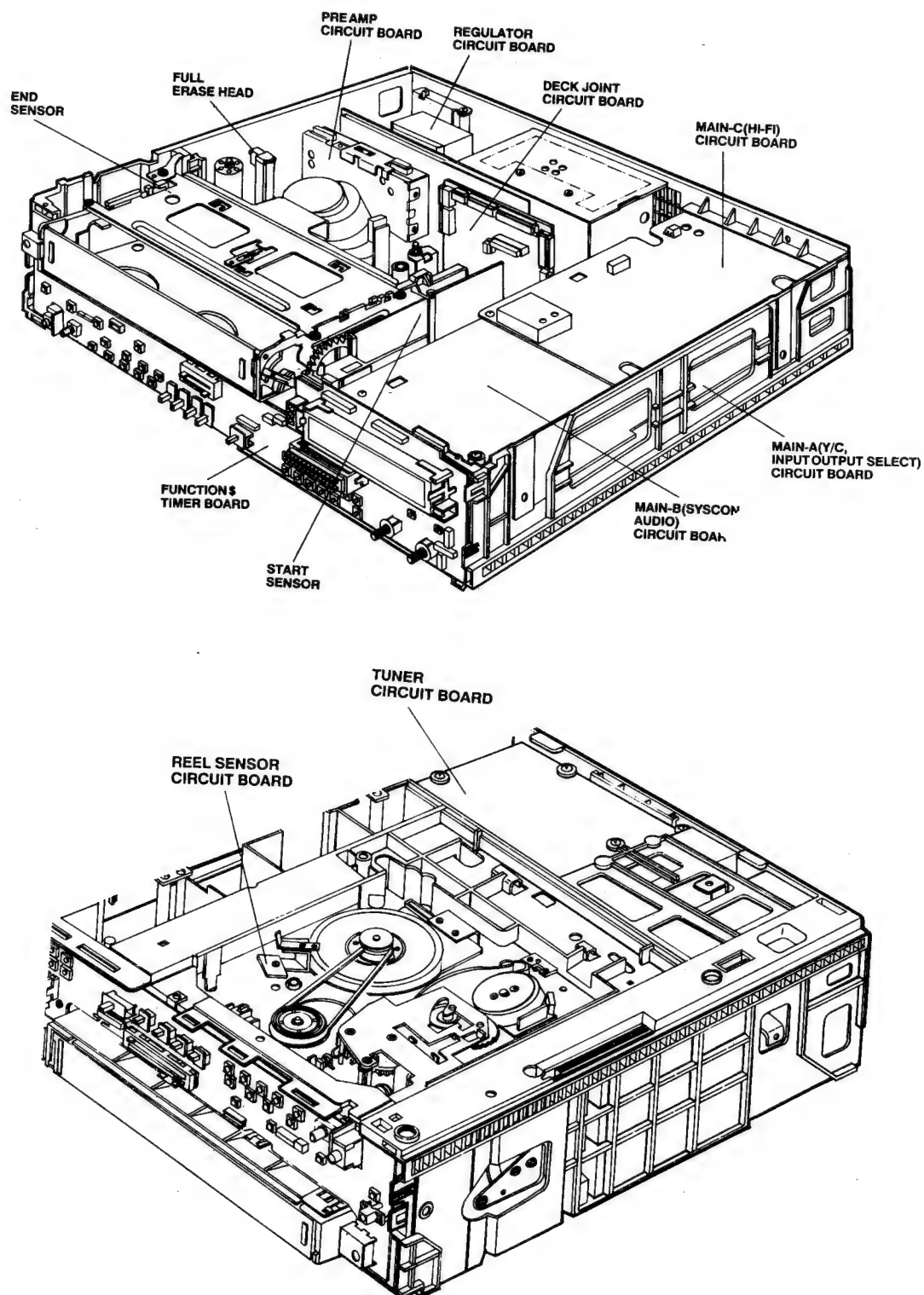


Fig.1

## 4-2. SERVO SECTION in MAIN B. PCB

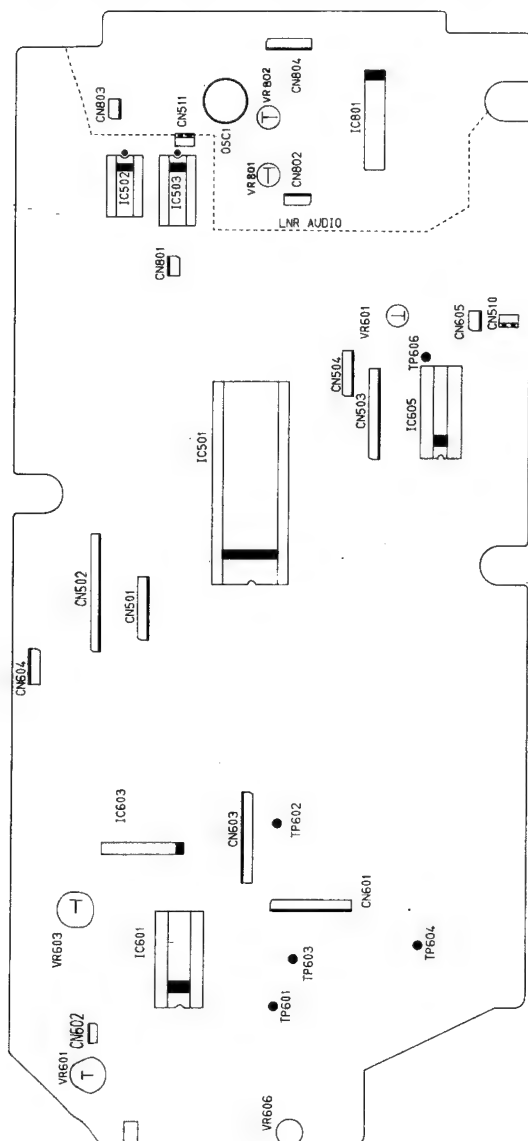


Fig.2 Syscon / Servo / Linear Audio / SECTION in MAIN-B P.C.B COMPONENT SIDE

### 4-2-1. PG (Pulse Generator) Shifter Adjustment.

**Equipment :** Oscilloscope

**Test Points :** TP 304 (Video Output Signal) Main. A  
TP 603 (H'd SW 25Hz) Main. B

**Adjust :** VR603 (PG shifter) Main. B

The Pulse Generator (PG) shifter determines the Video head switching point during playback. Misadjustment of the PG Shifter may cause head switching noise in the picture and/or vertical jitter.

1. Load the instrument with an alignment tape and playback the color bar signal or monoscope signal. (Alignment tape SR2-2)
2. Connect a channel-1 scope probe (1V/div.; 50us/div.)

- to TP603. Trigger the scope on channel-1.
3. Connect a channel-2 scope probe (1V/div.) to TP304.
4. Set the scope to (+) slope and adjust the shifter control (VR603) so that the trailing edge of the SW 25Hz pulse is placed  $6.5H \pm 0.5H$  (horizontal) lines before the start of vertical sync pulse in Fig 3(a)
5. And then, set the scope to (-) slope and confirm the PG in Fig 3 (b).

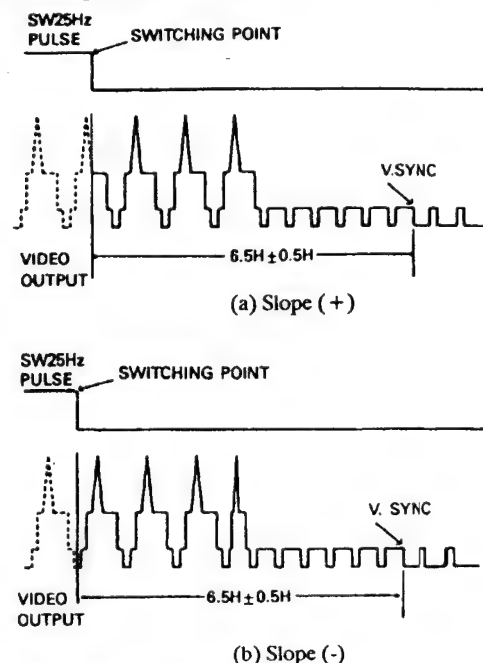


Fig.3 PG Shifter

### 4-2-2. Tracking Preset Adjustment

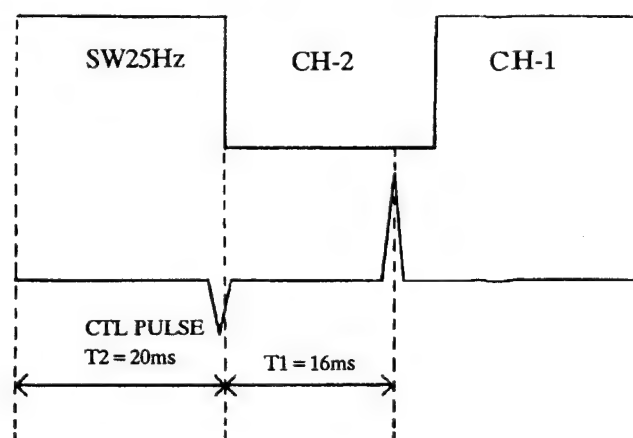


Fig. 4 Tracking Preset

**Equipment :** Oscilloscope

**Test Points :** TP 603 (H'd SW 25Hz) Main. B  
TP 604 (CTL Pulse) Main. B

**Adjust :** VR601 (Tracking Preset) Main. B

The adjustment sets the optimum tracking during playback of a tape recorded on this instrument so that it occurs at the detented position of the tracking control (VR102).



#### 4-3-1. E-E Level Adjustment

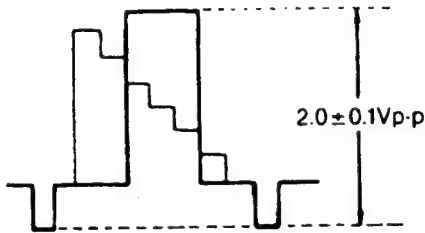


Fig.8

**Equipment :** Oscilloscope  
**Test Point :** TP304 (Video Out Level) Main A  
**Adjust :** VR309 (E-E Level Control) Main A

This adjustment sets the output level of video signal to the specified level.

1. Apply a PAL color bar signal to the video input jack on the rear panel.
2. Locate the input selected SW to EXT.
3. Connect a channel-1 scope probe (0.5V/div.; 10us/div.) to TP304
4. Adjust the E-E level control (VR309) for 2Vp-p.

**Note:**  
 When VCR set connected monitor (75 ohm termination) by scart jack adjust the E-E level control (VR309) for 1Vp-p.

#### 4-3-2. Video Signal DC Level Adjustment

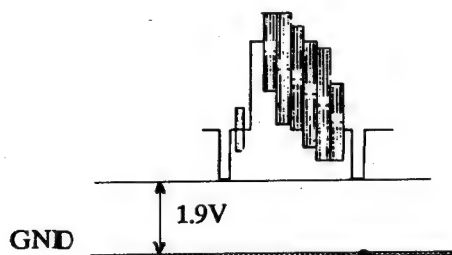


Fig.9

**Equipment :** Oscilloscope  
**Test Point :** Jumper pin4 to pin8 of IC310 Main A  
**Adjust :** VR308 (Video DC Level Control) Main A

This adjustment sets the DC level of video signal to the specified level

1. Apply a PAL color bar signal to the video input jack on the rear panel.
2. Locate the input selected SW to EXT.
3. Connect a channel-1 scope probe (0.5v.; 10us/div.) to jumper of IC310-4pin to 8pin.
4. Adjust the DC level of video signal control (VR308) for 1.9V.  
 (Video DC level means the DC level of ground to SYNC tip)

#### 4-3-3. PB Luminance(Y) Level Adjustment.

**Equipment :** Oscilloscope  
**Test Point :** TP 304 (Video Output Level) Main. A  
**Adjust :** VR 303 (PB Y Level Control) Main. A

This adjustment sets the output level of the PB luminance signal to the specified level.

1. Connect a channel-1 scope probe (0.5V/div.; 10us/div.) to TP 304.
2. Load the instrument with an alignment tape and playback the color bar signal. (Alignment Tape SR2-2)
3. Adjust the PB Luminance Level Control (VR303) for 2 Vp-p.

**Note:**  
 When VCR set connected monitor (75 ohm termination) by scart jack, adjust the PB level control (VR303) for 1Vp-p

#### 4-3-4. PB Chrominance Level Adjustment

**Equipment :** Oscilloscope  
**Test Point :** TP304 (Video Output Level) Main. A  
**Adjust :** VR302 (Chroma Level Control) Main. A

This adjustment sets the output level of PB video chrominance signal to the specified level.

1. Connect a channel-1 scope probe (0.5V/div.) to TP304.
2. Load the instrument with an alignment tape and playback the color bar signal. (Alignment Tape SR 2-2)
3. Adjust the PB chrominance Level Control (VR302) for 0.6Vp-p.

**Note:**  
 When VCR set connected monitor (75 ohm termination) by scart jack, adjust the PB chrominance level control (VR302) for 0.3Vp-p.

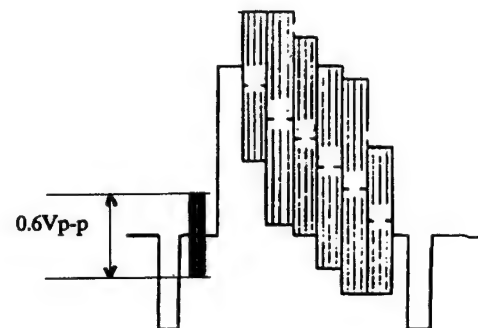


Fig.10

#### 4-3-5.Noise Cancel Adjustment

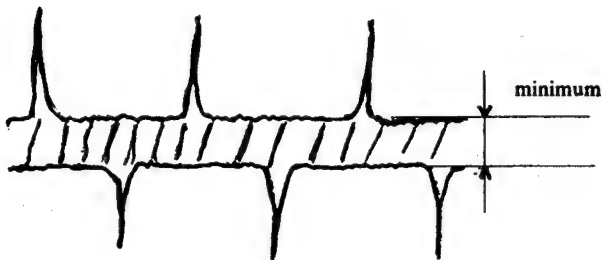


Fig.11

**Equipment:** Oscilloscope

**Test Point :** TP 304 (Video Output Level) Main A  
TP302(Noise Cancel Level) Main A

**Adjust :** VR 305(Noise Cancel Control) Main A

This adjustment sets the level of noise to the minimum level

- 1.Connect a channel-1 scope probe(0.5V/div.;10us/div) to TP304,channel-2 scope probe (5mV/div) to TP302. Oscilloscope sets mode channel-2.
- 2.Load the instrument with an alignment tape and playback the color bar signal. (Alignment Tape SR2-2)
3. Adjust the Noise Cancel control (VR305) for Minimum level.

#### 4-3-6. Sub Carrier Frequency (4.43 MHz) Adjustment

**Equipment:** Frequency Counter

**Test Point :** TP306 (VXO OUT) Main. A

**Adjust :** VC301 (Sub Carrier Frequency) Main. A

This adjustment sets the 4.43MHz VXO oscillation frequency accurately.

When this adjustment is incomplete, the color of blue back is disabled.

1. Connect a frequency counter to TP306.
2. Adjust the Sub Carrier Frequency Control (VC301) so that the frequency reads 4.433619 MHz +/- 50Hz

#### 4-3-7. SECAM DET Adjustment (OPTION: Used For VX-Series Model)

**Equipment:** Oscilloscope

**Test point :** TP307(SECAM DET Level) Main A

**Ajust :** FL304 (SECAM DET Control) Main A

- 1.Apply a SECAM color bar signal to the video input jack on the rear panel
- 2.Locate the input selected SW to EXT.
- 3.Connect a channel-1 scope probe (1V/div.) to TP307
- 4.Insert a blank tape and make a recording
- 5.Adjust FL304 for 4.2Vp-p

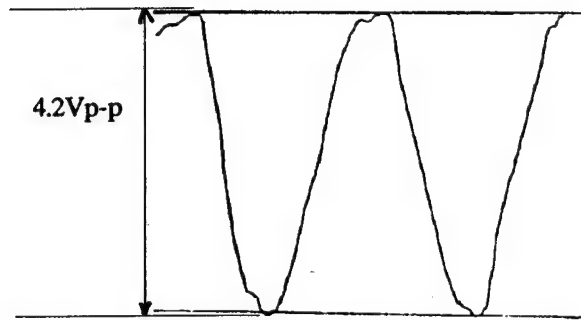


Fig.12 SECAM DET LEVEL

#### 4-3-8. REC FM Current level Adjustment (Pre- AMP)

**Equipment :** Oscilloscope

**Test points :** TP 1(REC Current Level) Pre-AMP  
TP603(H'd SW 25Hz) Main B

**Adjust :** VR1 (The left VR of Pre AMP)

This adjustment sets the level of REC FM Current to the optimum level.

- 1.Apply a PAL color bar signal to the video input jack on the rear panel.
- 2.Locate the input selected SW to EXT.
- 3.Connect a channel-1 scope probe (50mV. : 1us/div.) to TP1 (Pre AMP). Connect a channel-2 scope probe (1V/div.) to TP603 (Main-B board).
- 4.Insert a blank tape and make a recording.
- 5.Adjust the FM current control (VR1) for 100mV.

#### 4-3-9. REC CHROMA Level Adjustment (Pre- AMP)

**Equipment :** Oscilloscope

**Test Point :** TP1(REC Current Level) Pre-AMP  
TP603(H'd SW 25 Hz) Main B

**Adjust :** VR2(The right VR of the Pre-AMP)

This adjustment sets the level of REC CHROMA to the optimum level.

- 1.Apply a PAL color bar signal to the video input jack on the rear panel
- 2.Locate the input selected SW to EXT.
- 3.Connect a channel-1 scope probe(50mV/div.;1us/div) to TP1(Pre-AMP).
- 4.Connect a channel-2 scope probe to TP603
- 5.Make a short pin3(GND) and pin6(REC Y FM) of wafer-CN1(Pre-AMP)
- 6.Adjust the REC CHROMA level control(VR2) for 24mV.

#### 4-3-10.O.S.D Level Adjustment (OPTION : Used For OSD Function Model)

**Equipment :** Oscilloscope

**Test Point :** TP304(Video Out) Main A

**Adjust :** VC303(Horizontal Position) Main A  
VR308(OSD Level ADJ) Main A

1. Apply a color bar signal to the input jack on the rear panel.
2. Locate the input select SW to EXT.
3. Push twice the display key on the REMOCON so that OSD is shown at the TV monitor.
4. Adjust OSD position control (VC303) so that OSD sets on the center of TV monitor. (See Fig.13)
5. Adjust the OSD level control (VR308) for 100% white level. (See Fig.14)

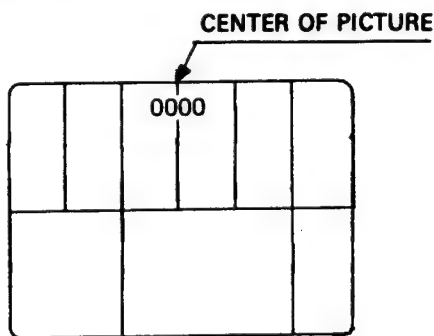


Fig.13

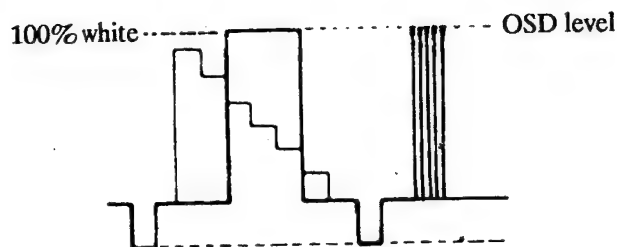


Fig.14

#### 4-4. Hi-Fi SECTION in Main C P.C.B

##### Notes;

\* Unless otherwise specified, set the switches on the front panel as follows.

Audio monitor select switch :	Hi-Fi
Source select switch :	EXT
ALC switch :	AUTO

\* Connect 47K-ohm loads to both channels L and R of the audio line output terminals.

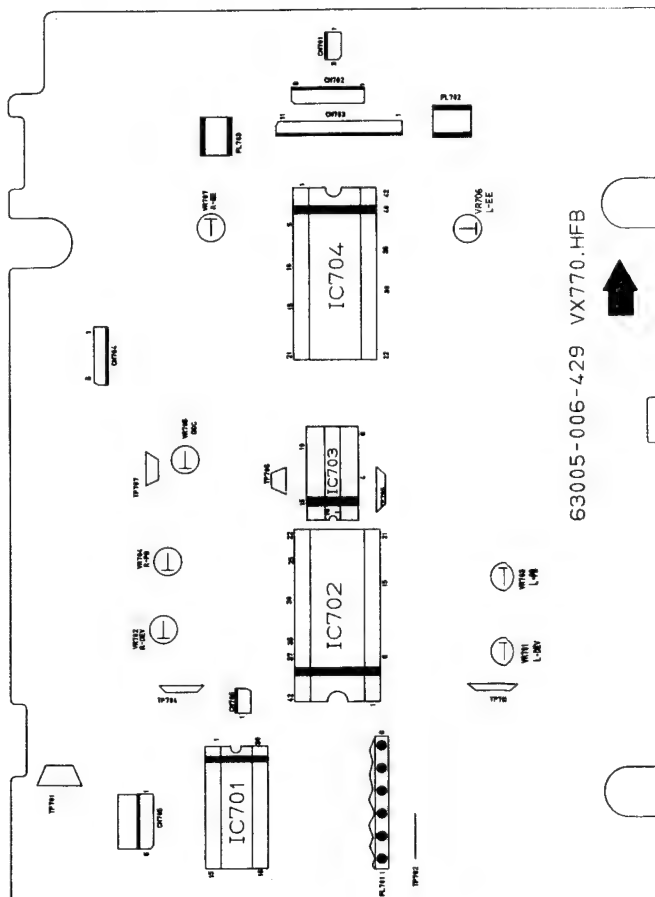


Fig.15 Hi-Fi Section Main-C P.C.B Component side

#### 4-4-1. E-E Level Adjustment

Equipment : Sinewave Signal Generator  
AC Voltmeter

Test Point : Audio Output Jack

Adjust :	VR706 (L-CH EE Level)	Main C
	VR707 (R-CH EE Level)	Main C

1. Set the output of signal generator to 1KHz, -8dBm (309mVrms).
2. Connect the signal generator to both audio in terminal.
3. Adjust VR706 so that the audio (L-CH) output level becomes -6dBm (388mVrms).
4. Adjust VR707 so that the audio (R-CH) output level becomes -6dBm (388mVrms).

#### 4-4-2.Audio Playback Level Adjustment

**Equipment :** AC Voltmeter

**Test Point :** Audio Output Jack

**Adjust :** VR703 (L-CH PB Level) Main C  
VR704 (R-CH PB Level) Main C

- 1.Connect a AC voltmeter to the audio output jack.
- 2.Playback the alignment tape(HR2-1).
- 3.Adjust VR703 so that the audio(L-CH) output level becomes -6dBm(388mVrms).
- 4.Adjust VR704 so that the audio(R-CH) output level becomes -6dBm(388mVrms)

#### 4-4-3.Audio Deviation Adjustment

After this adjustment "Audio Playback Level Adjustment" must be completed.

**Equipment :** Sinewave Signal Generator

AC Voltmeter

**Test Point :** Audio Output Jack

**Adjust :** VR701(L-CH Deviation Control) Main C  
VR702(R-CH Deviation Control) Main C

- 1.Set the output of signal generator to 1KHz -8dBm (309mVrms).
- 2.Connect the signal generator to both audio in terminal.
- 3.Adjust REC level control VR105 of front panel so that both audio output level becomes -6dBm(388mVrms).
- 4.Record the audio signal and playback the just recored portion.
- 5.Adjust VR701 so that the audio(L-CH) output level becomes -6dBm(388mVrms).
- 6.Adjust VR702 so that the audio(R-CH) output level becomes -6dBm(388mVrms).

#### 4-4-4.Drop Out Level Adjustment

**Equipment :** Digital Voltmeter

**Test Point :** TP707(Drop Out Level) Main C

**Adjust :** VR705(Drop Out Level Control) Main C  
Fig15

- 1.Connect a digital voltmeter to TP707.
- 2.Playback the alignment tape SR2-2.
- 3.Adjust VR705 to obtain 2.6V.

#### 4-4-5.Level Meter Adjustment

**Equipment :** Sinewave Signal Generator

**Test Point :** Level Meter

**Adjust :** VRE01(L-CH Level ADJ) Main A  
VRE02(R-CH Level ADJ) Main A

- 1.Set the output of signal generator to 1KHz, -8dBm(309mVrms) and supply it to audio input jack(L).
- 2.Adjust VRE01 so that the 0dB of L-CH level meter just lights up.
- 3.Adjust VRE02 so that the 0dB of L-CH level meter just lights up.

#### 4-5.NORMAL AUDIO SECTION in Main B P.C.B

**Notes:**

\* Set the switches on the front panel as indicated below.

Audio monitor select switch : NOR

Source select switch : EXT

\* Connect 47K-ohm load to both channels L and R of the audio line output terminals.

\* Perform the azimuth adjustment and height adjustment perfectly and then proceed the adjustments.

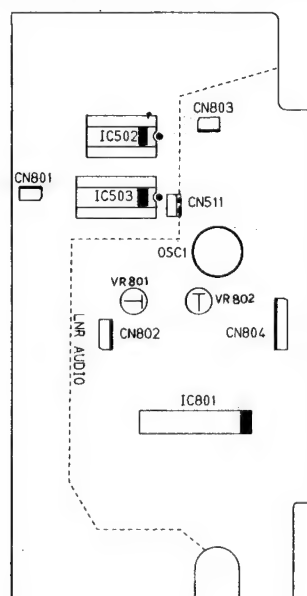


Fig.16 Normal Audio Section in Main-B P.C.B  
Component Side

#### 4-5-1.Playback Output Level Adjustment

**Equipment :** Signal Generator

AC Voltmeter

**Test Point :** Audio Output Jack

**Adjust :** VR801(PB Output Level Control) Main B

- 1.Connect AC voltmeter to the audio output jack and playback the alignment tape(SR2-2).
- 2.Adjust VR801 so that the playback level becomes -6dBm(388mVrms).

#### 4-5-2.Audio Bias Current Adjustment

**Equipment :** AC Voltmeter

**Test Point :** TP1

TP2

**Adjust :** VR802(Audio Bias Current ADJ) Main B

- 1.Connect a AC voltmeter to TP1(+) and TP2(-).  
(Do not use long cable for connection)
- 2.Make a short circuit at terminal of the audio input.
- 3.Place the VCR in recording mode.
- 4.Adjust VR802 so that reading of AC Voltmeter becomes 2.2mVrms.

#### 4-6. TUNER BLOCK ADJUSTMENT (OPTION : Used For VX-319,VX-770,VB-770)

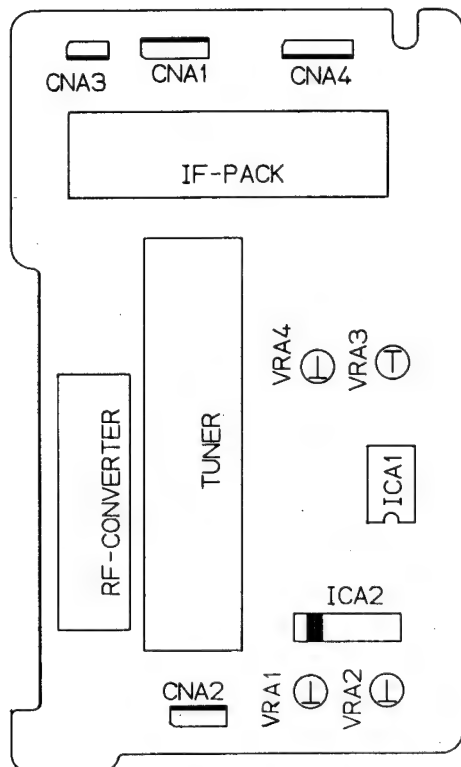


Fig.17 TUNER P.C.B Component Side

##### 4-6-1. Dual Sound Level Adjustment

**Equipment:** AC voltmeter.

TV channel signal generator.

**Test Point :** Pin 2 and 3 of a connector CNA4 TUNER

**Adjust:** VRA3(L-CH Sound Level ADJ) TUNER  
VRA4(R-CH Sound Level ADJ) TUNER

This adjustment sets the output level of the dual signal to the specified level.

##### 4-6-1.1. L-CH Output Level Adjustment (MAIN)

1. Place the instrument in the E-E mode(TV mode)
2. Apply the output of the generator to the RF IN Terminal on the rear panel.
3. Set the RF signal generator.  
\* Set the channel selector to CH2(48.25MHz)
- \* Condition  
Dual : ON Pilot : ON Pre-emp : 50us  
Deviation : +/- 30KHz
4. Turn the VCR power on and select TV mode.
5. Set the channel on the front panel to CH2.
6. Connect a AC voltmeter to the pin2 of a connector CNA4.
7. Adjust the Sound(Audio) level control (VRA3) for -14dBs.

##### 4-6-1.2. R-CH Output Level Adjustment(SUB)

1. Connect a AC voltmeter to the pin3 of a connector CNA4.
2. Adjust the Sound(Audio) level control (VRA4) for -14dBs.

##### 4-6-2. Stereo Sound Distortion and Output Level Adjustment.

**Equipment :** Oscilloscope, AC voltmeter,  
TV Channel Signal Generator.

**Test point :** Pin 2 of a connector CNA4.

**Adjust :** VRA1 (Distortion Level ADJ) Main A  
VRA2(Output level ADJ) Main A

This Adjustment suppresses the Audio distortion and sets the output level of STEREO signal to the specified level.

##### 4-6-2-1. Distortion Adjustment

1. Apply the output of the generator to the RF IN terminal on the rear panel.
2. Set the RF signal generator.

\* Set the channel selector to CH2. (48.25MHz)

\* Condition

Stereo : ON, Pilot : ON, Pre-emp : 50us  
Deviation : +/- 30KHz

3. Turn the VCR power on and select TV mode.
4. Set the channel on the Front panel to CH2.
5. Connect a channel-1 scope probe (0.2V/div.) to the pin2 of a connector CNA4.
6. Adjust the Distortion Control (VRA1) for minimum distortion.

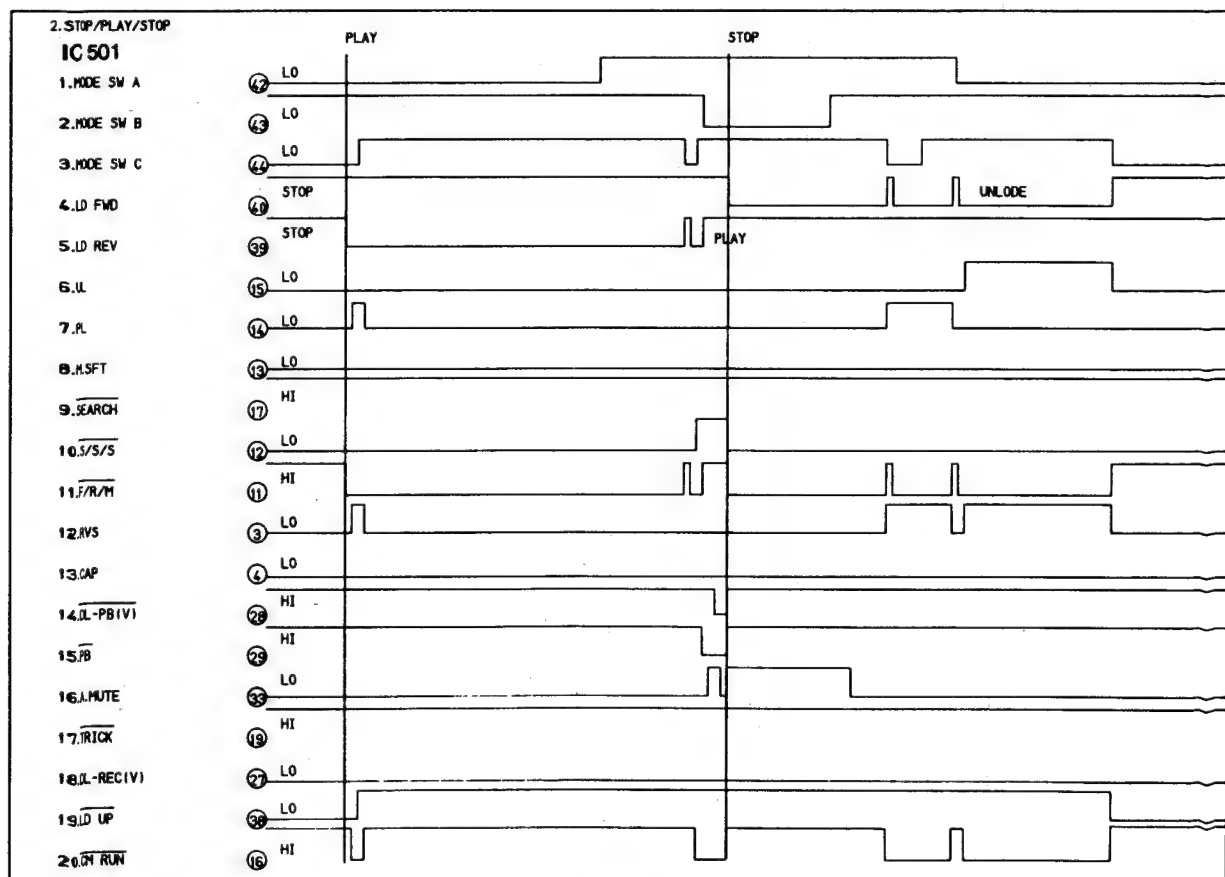
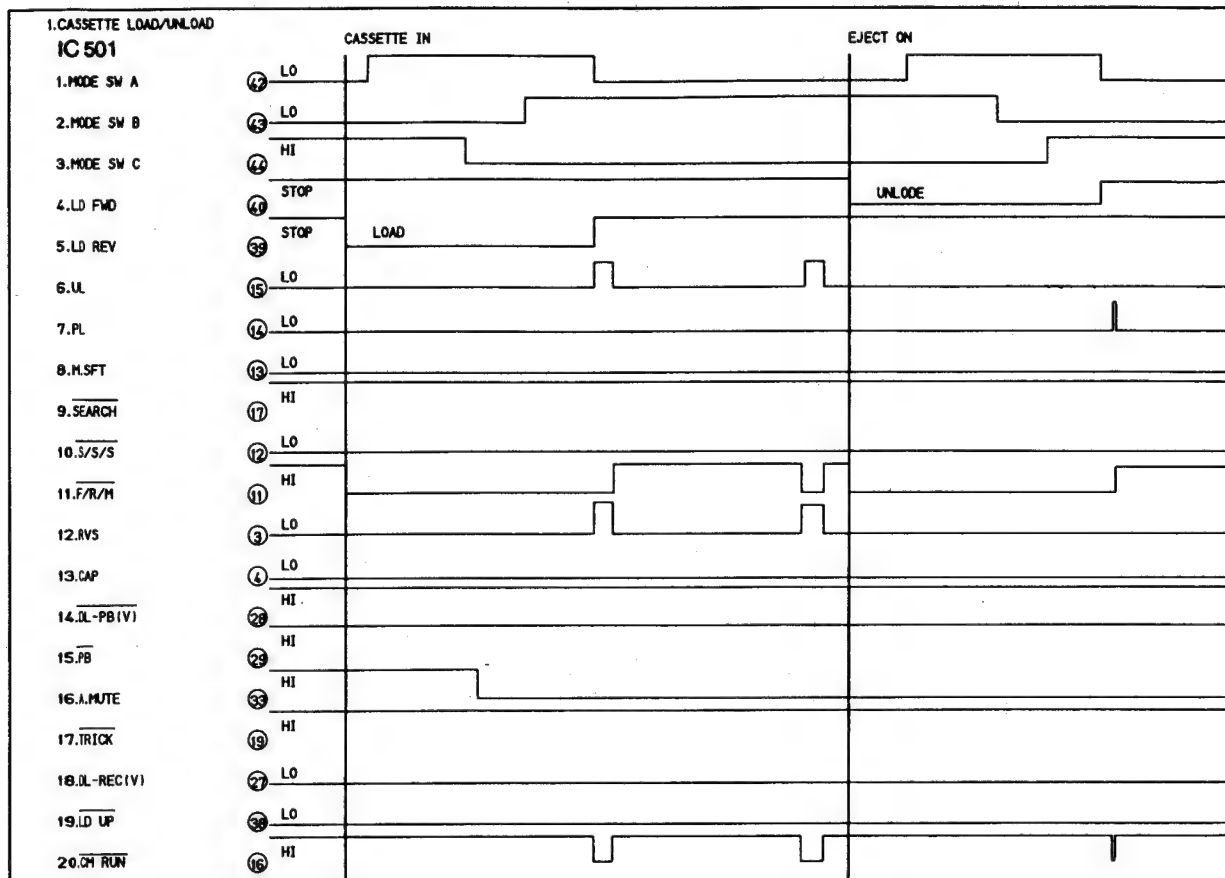
##### 4-6-2-2. STEREO Output Level Adjustment

1. Connect a AC voltmeter to the pin2 of a connector CNA4
2. Adjust the Output Level Control (VRA2) for -14dBs.



# 5. TIMING CHART / TROUBLESHOOTING GUIDE

## 5-1. Timing Chart

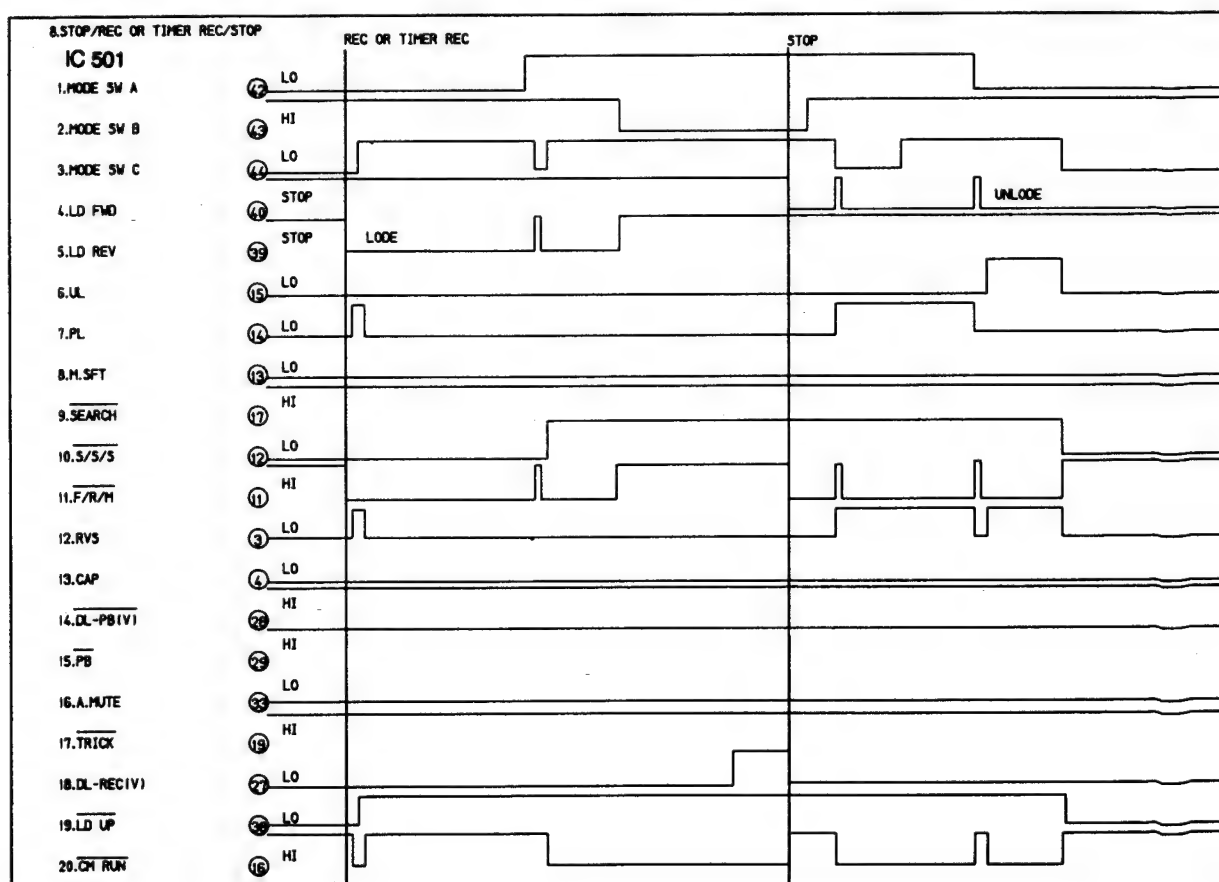
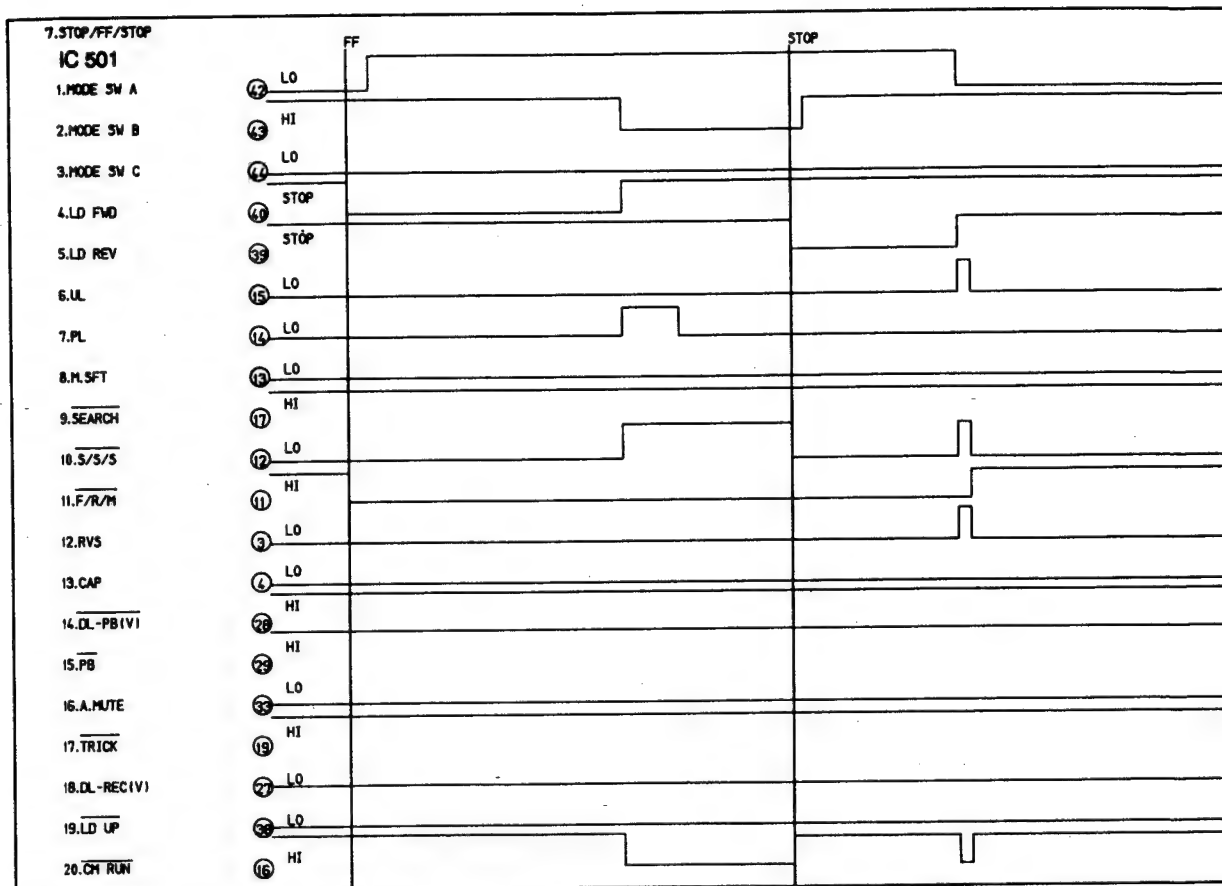


3.PLAY OR X 2/PAUSE/F.ADV/PLAY OR X 2		PAUSE	F.ADV	PLAY OR X 2
<b>IC 501</b>				
1.MODE SW A	42 HI			
2.MODE SW B	43 LO			
3.MODE SW C	44 HI			
4.LD FWD	49 STOP			
5.LD REV	39 STOP			
6.UL	15 LO			
7.PL	14 LO			
8.M.SFT	13 LO			
9.SEARCH	17 HI			
10.S/S/S	12 HI			
11.F/R/M	11 HI			
12.RVS	3 LO			
13.CAP	4 LO	III		
14.DL-PB(V)	28 LO			
15.PB	29 LO			
16.A.MUTE	33 LO			
17.TRICK	19 HI			
18.DL-REC(V)	27 LO			
19.LD UP	38 HI			
20.CH RUN	16 LO			

4.PLAY OR X 2/R.SEARCH/PLAY OR X 2		R.SEARCH	PLAY OR X 2
<b>IC 501</b>			
1.MODE SW A	42 HI		
2.MODE SW B	43 LO		
3.MODE SW C	44 HI		
4.LD FWD	49 STOP		
5.LD REV	39 STOP		
6.UL	15 LO		
7.PL	14 LO		
8.M.SFT	13 LO		
9.SEARCH	17 HI		
10.S/S/S	12 HI		
11.F/R/M	11 HI		
12.RVS	3 LO		
13.CAP	4 LO		
14.DL-PB(V)	28 LO		
15.PB	29 LO		
16.A.MUTE	33 LO		
17.TRICK	19 HI		
18.DL-REC(V)	27 LO		
19.LD UP	38 HI		
20.CH RUN	16 LO		

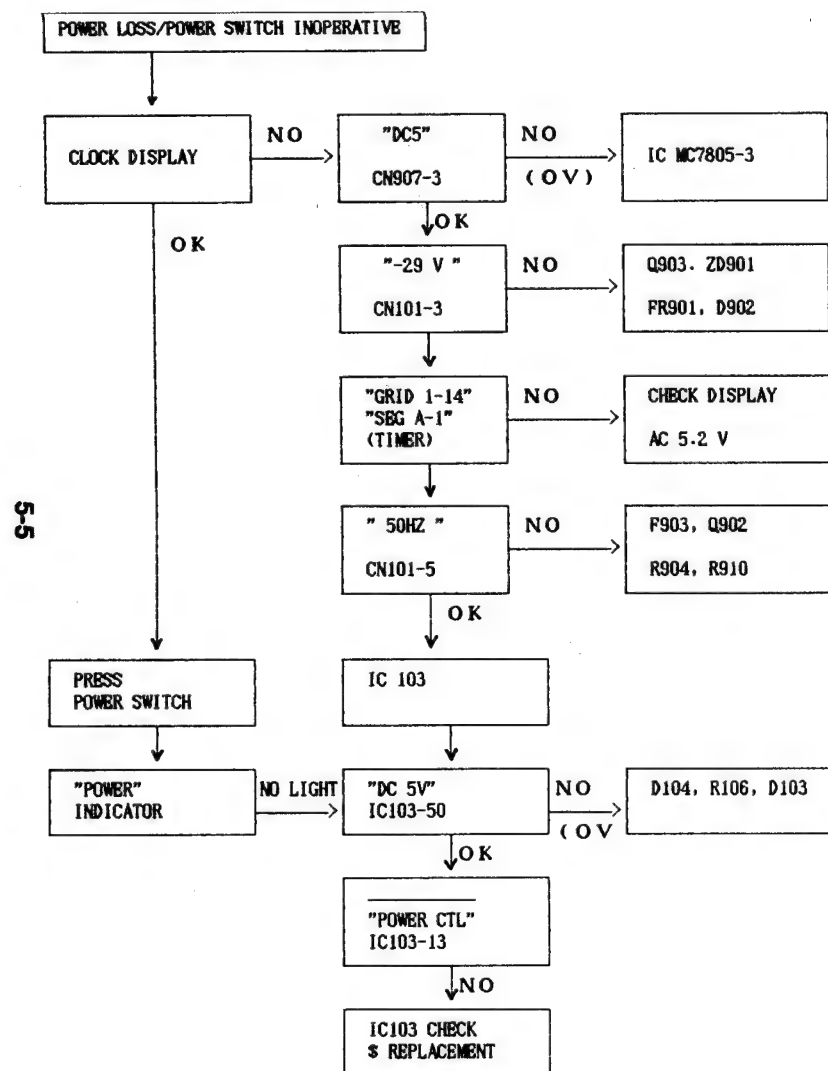
5.PLAY OR X 2/F.SEARCH/PLAY OR X 2		F. SEARCH	PLAY OR X 2
<b>IC 501</b>			
1.MODE SW A	42	HI	
2.MODE SW B	43	LO	
3.MODE SW C	44	HI	
4.LD FWD	40	STOP	
5.LD REV	39	STOP	
6.U.L	15	LO	
7.PL	14	LO	
8.M.SFT	13	LO	
9.SEARCH	17	HI	
10.S/S/S	12	HI	
11.F/R/M	11	HI	
12.RVS	3	LO	
13.CAP	4	LO	
14.DL-PB(V)	28	LO	
15.PB	29	LO	
16.A.MUTE	33	LO	
17.TRICK	19	HI	
18.DL-REC(V)	27	LO	
19.LD UP	36	HI	
20.ON RUN	16	LO	

6.STOP/REW/STOP		REW	STOP
<b>IC 501</b>			
1.MODE SW A	42	LO	
2.MODE SW B	43	HI	
3.MODE SW C	44	LO	
4.LD FWD	40	STOP	
5.LD REV	39	STOP	
6.U.L	15	LO	
7.PL	14	LO	
8.M.SFT	13	LO	
9.SEARCH	17	HI	
10.S/S/S	12	LO	
11.F/R/M	11	HI	
12.RVS	3	LO	
13.CAP	4	LO	
14.DL-PB(V)	28	HI	
15.PB	29	HI	
16.A.MUTE	33	LO	
17.TRICK	19	HI	
18.DL-REC(V)	27	LO	
19.LD UP	36	LO	
20.ON RUN	16	HI	

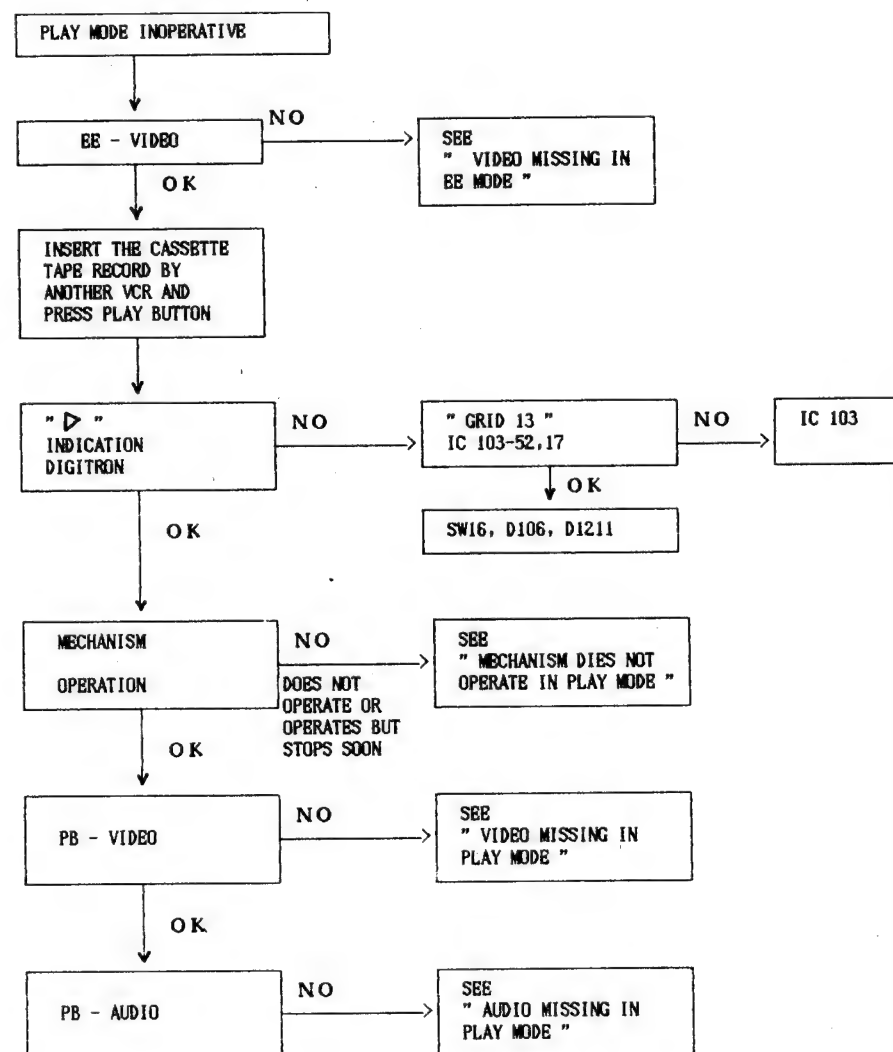


## 5-2. Troubleshooting Guides

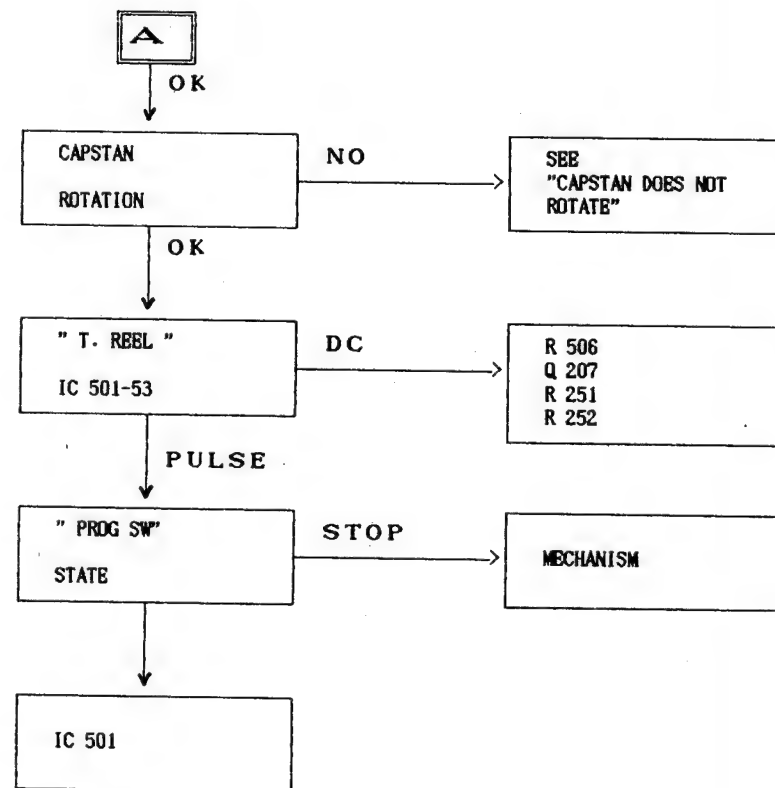
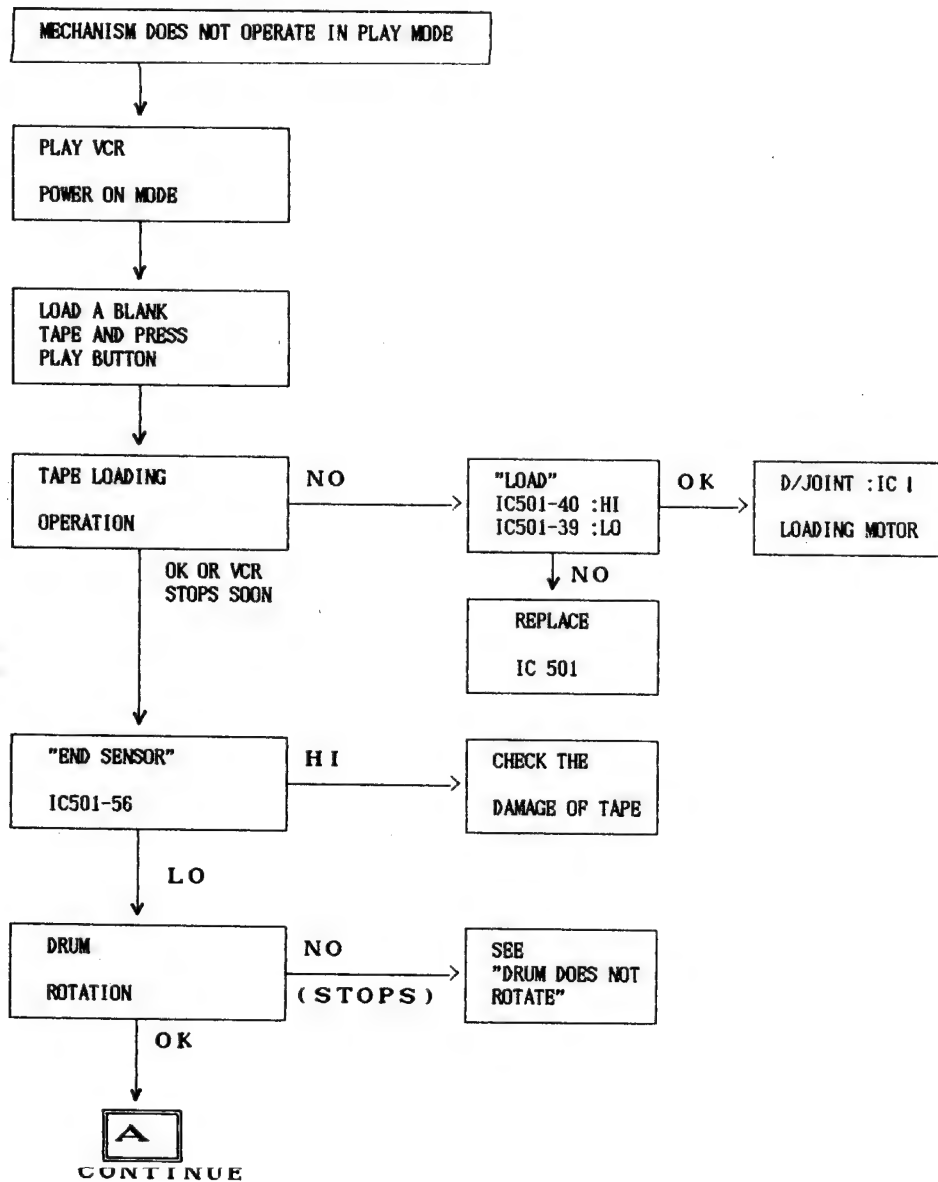
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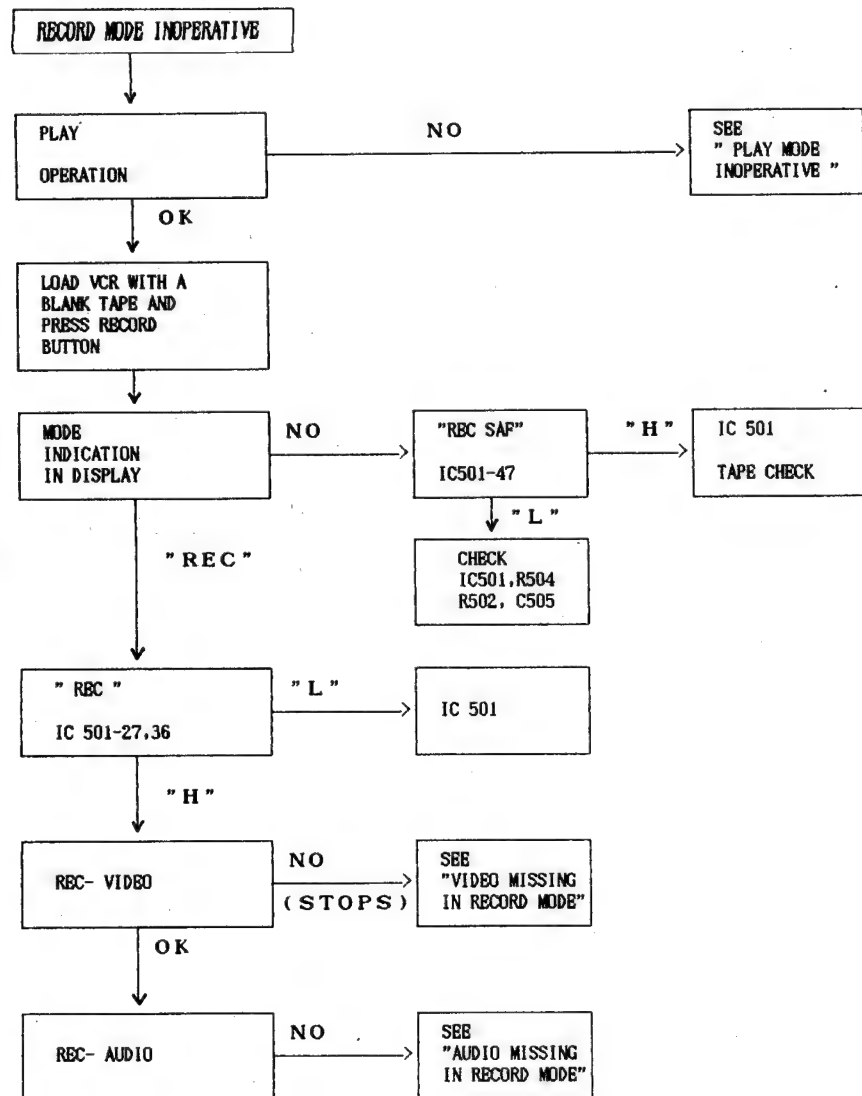
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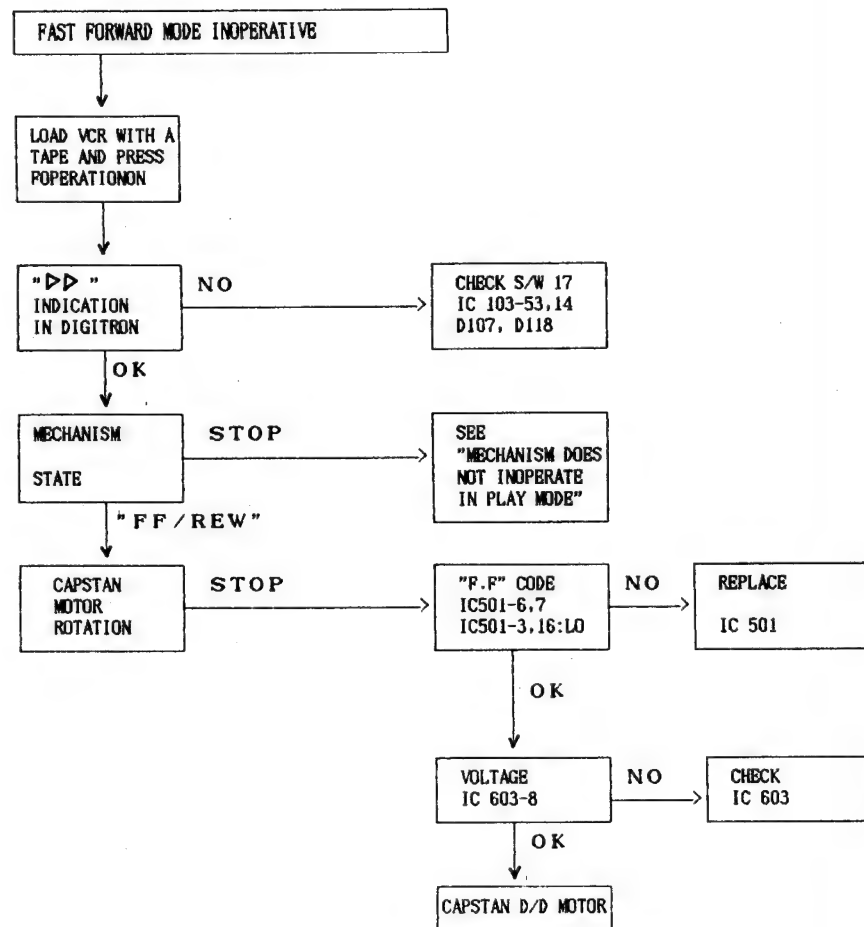
5 - 2 - 3 .



5-2-4.

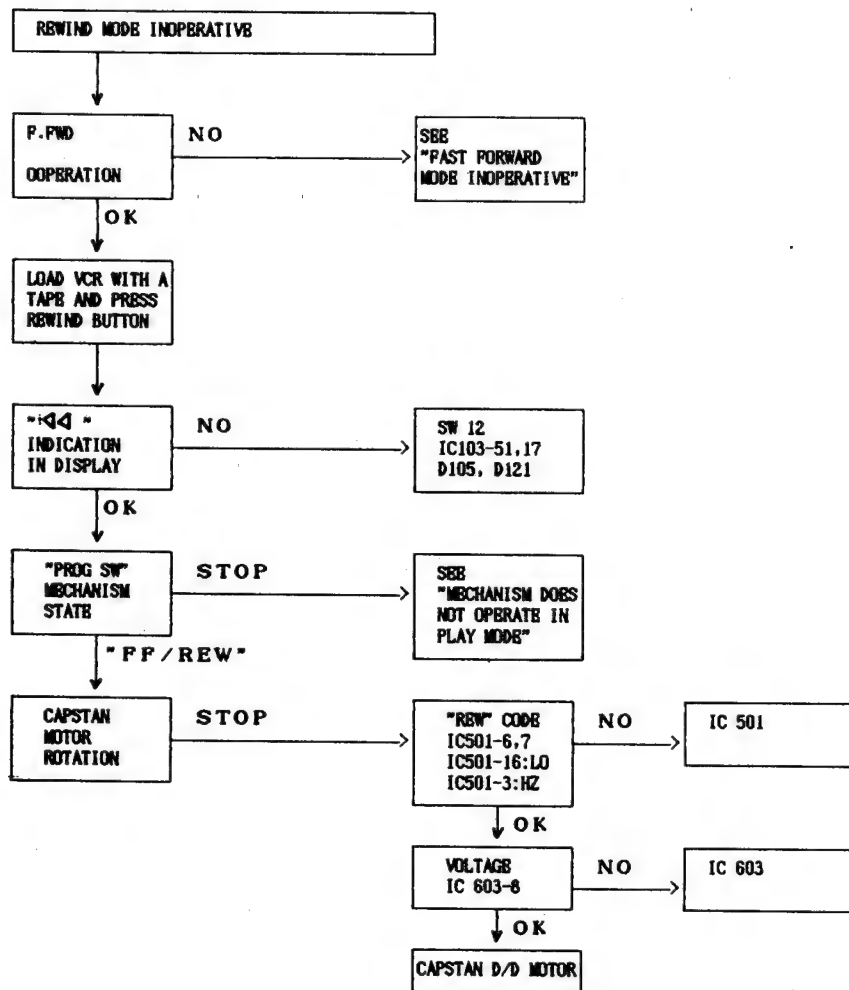


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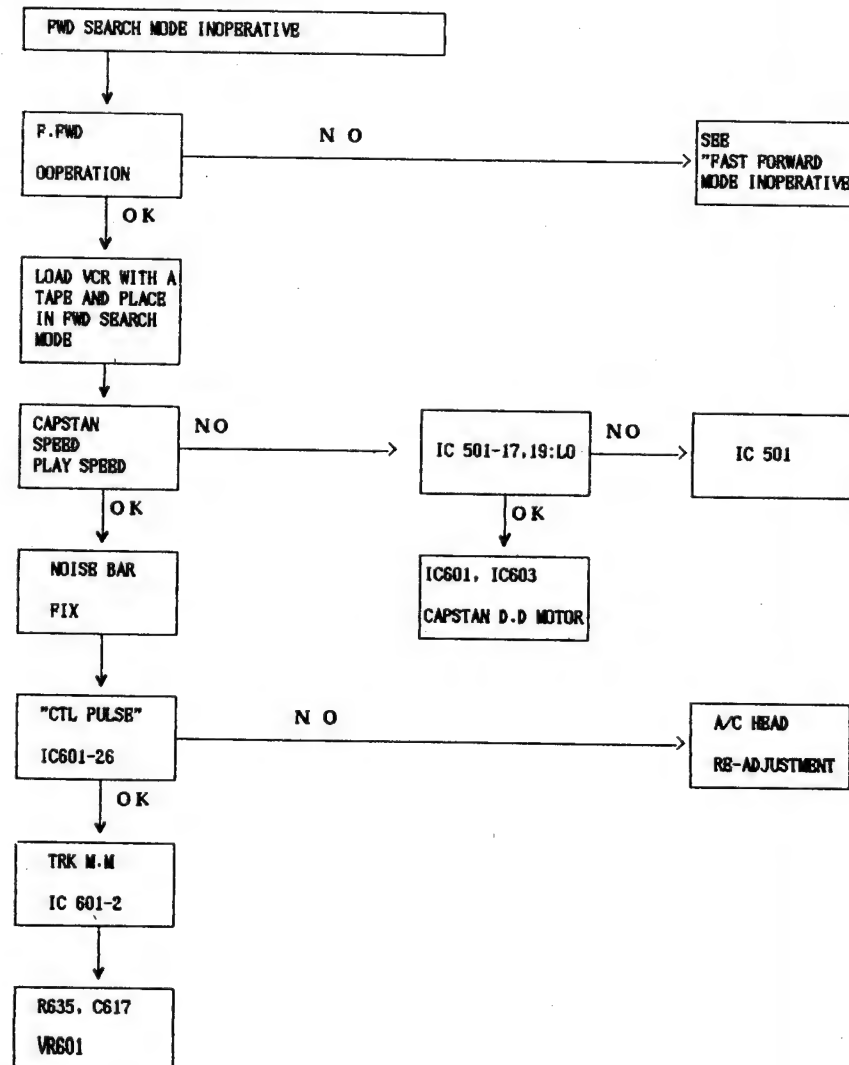




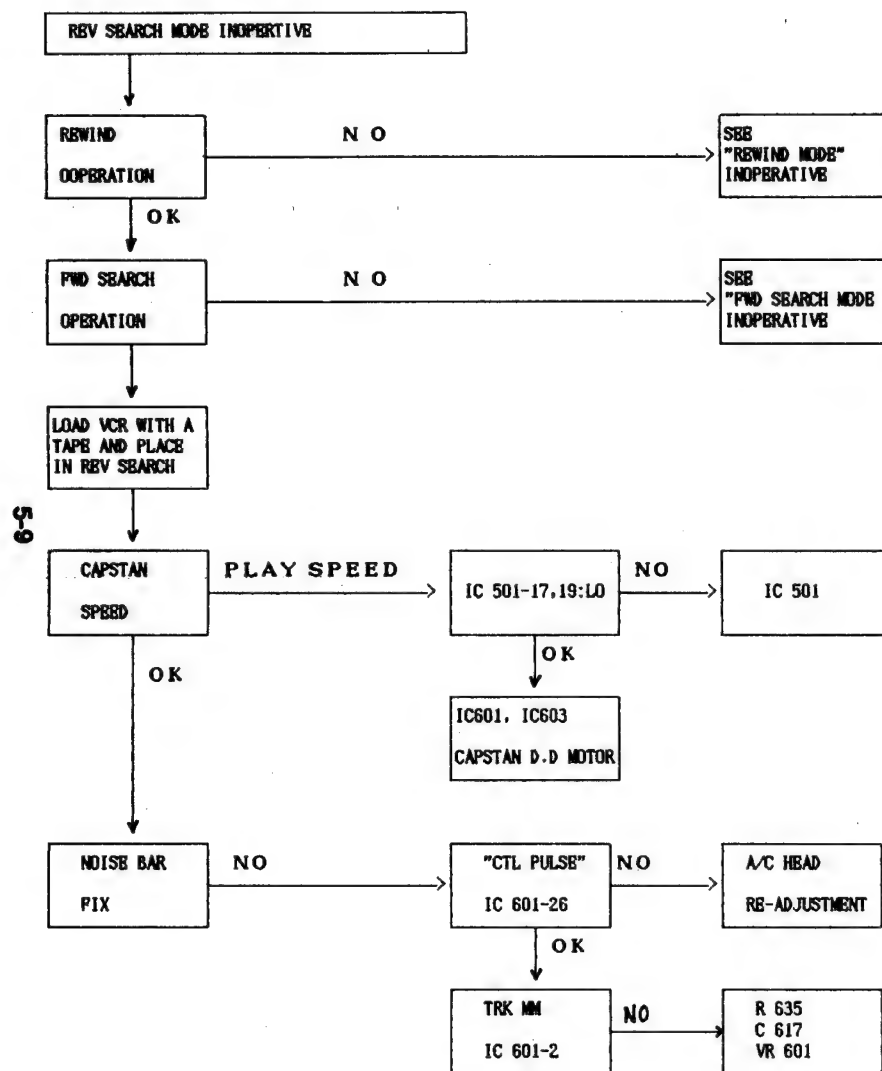
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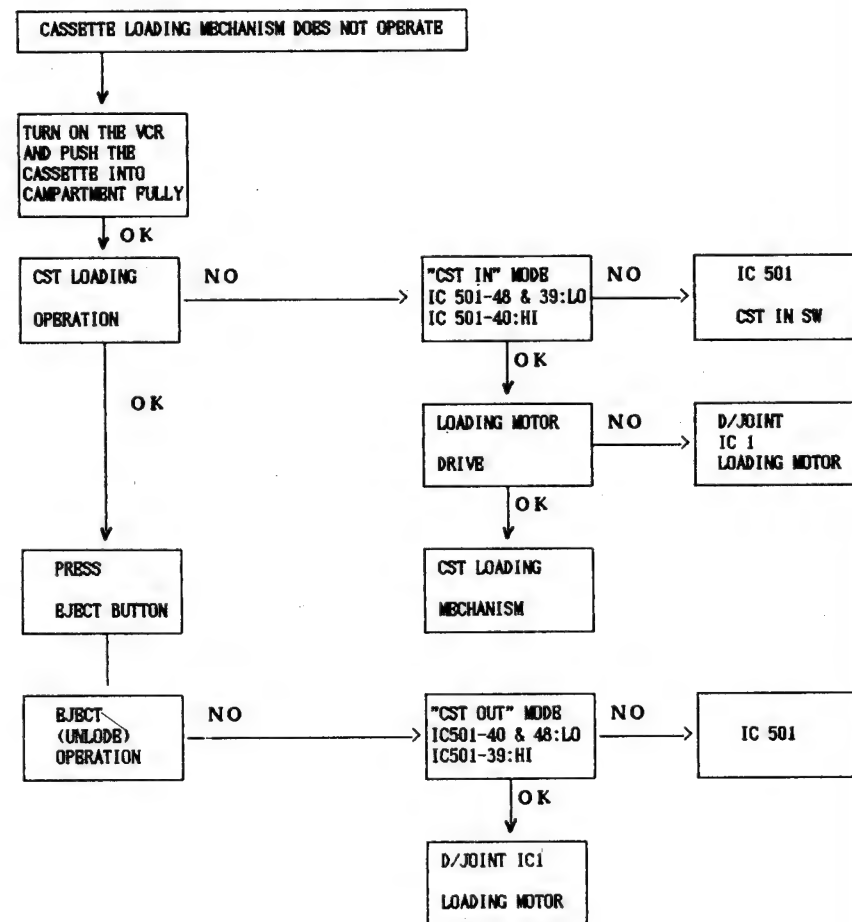
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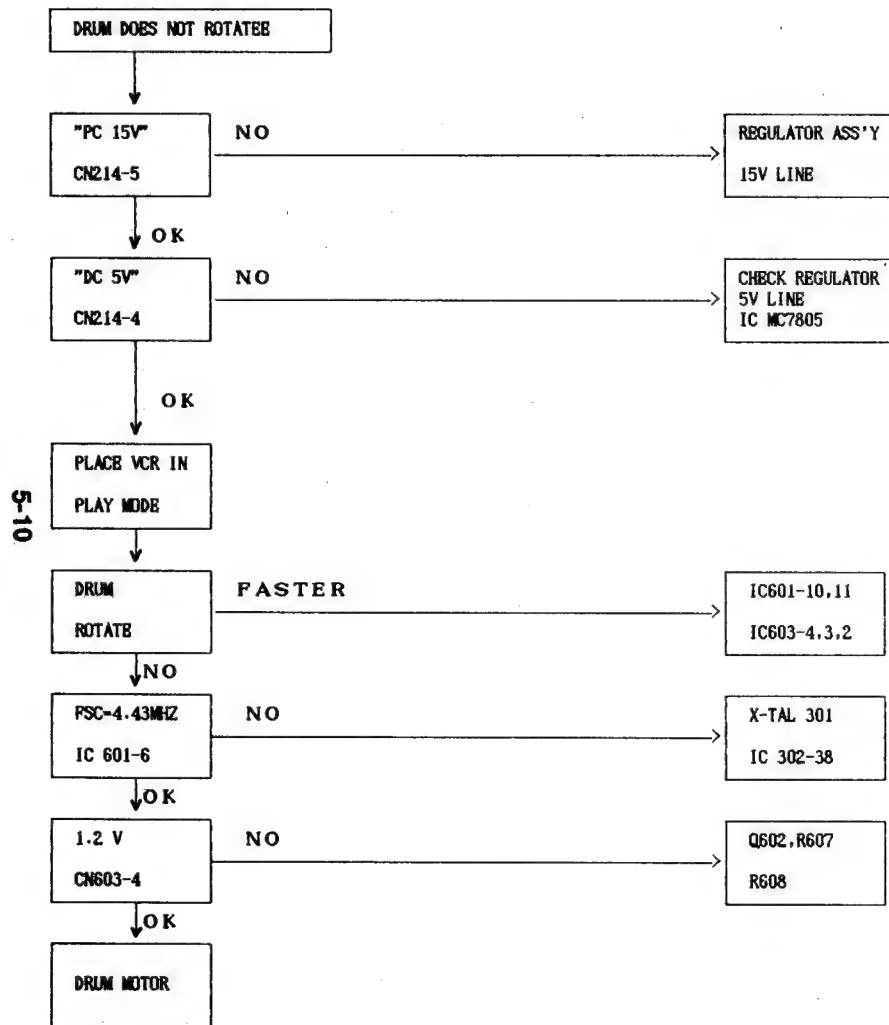
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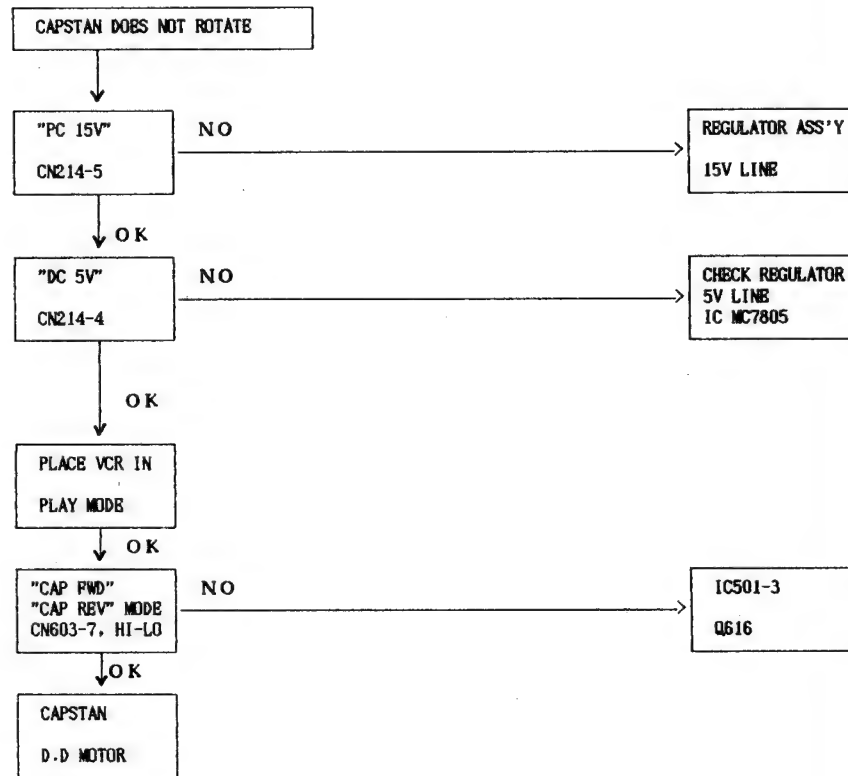
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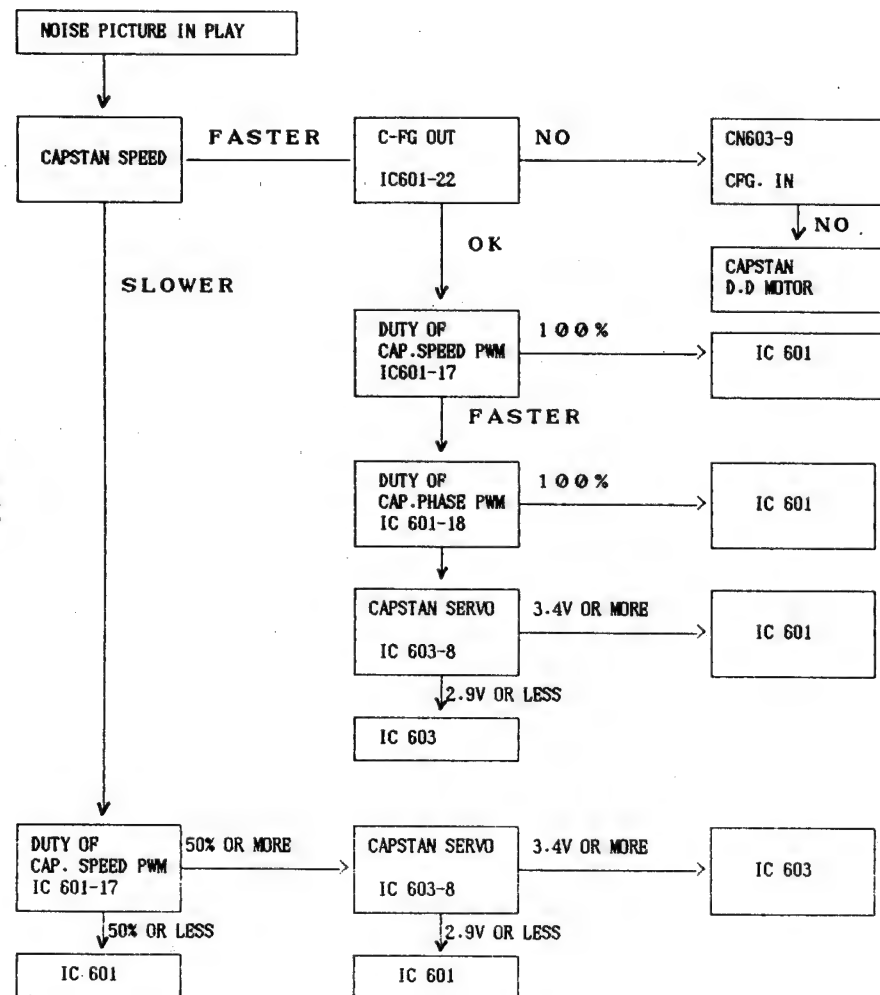
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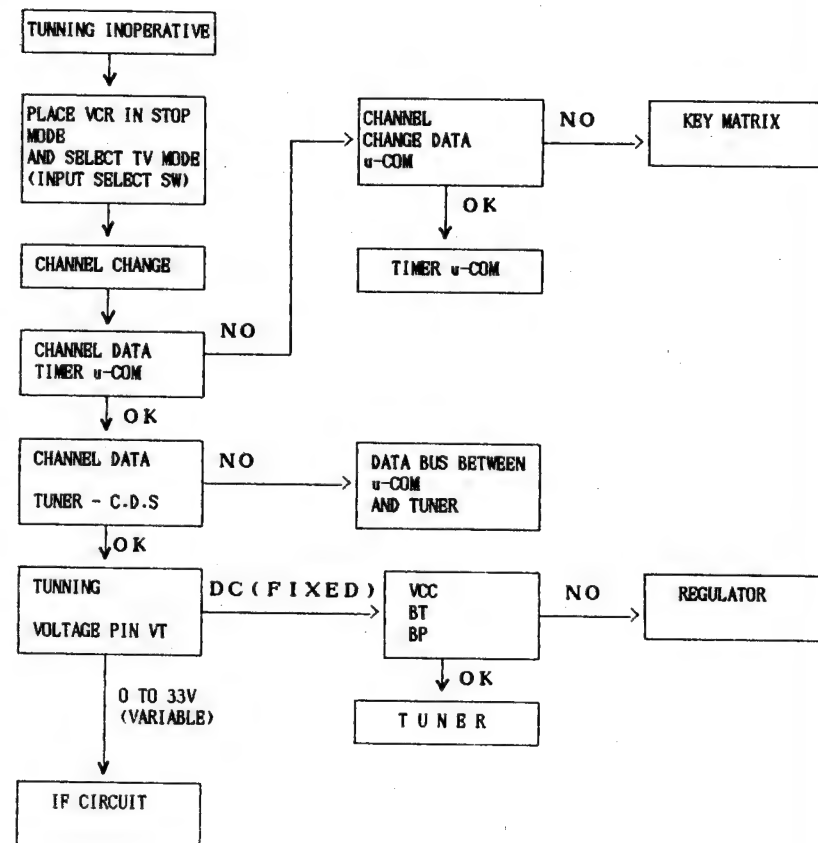
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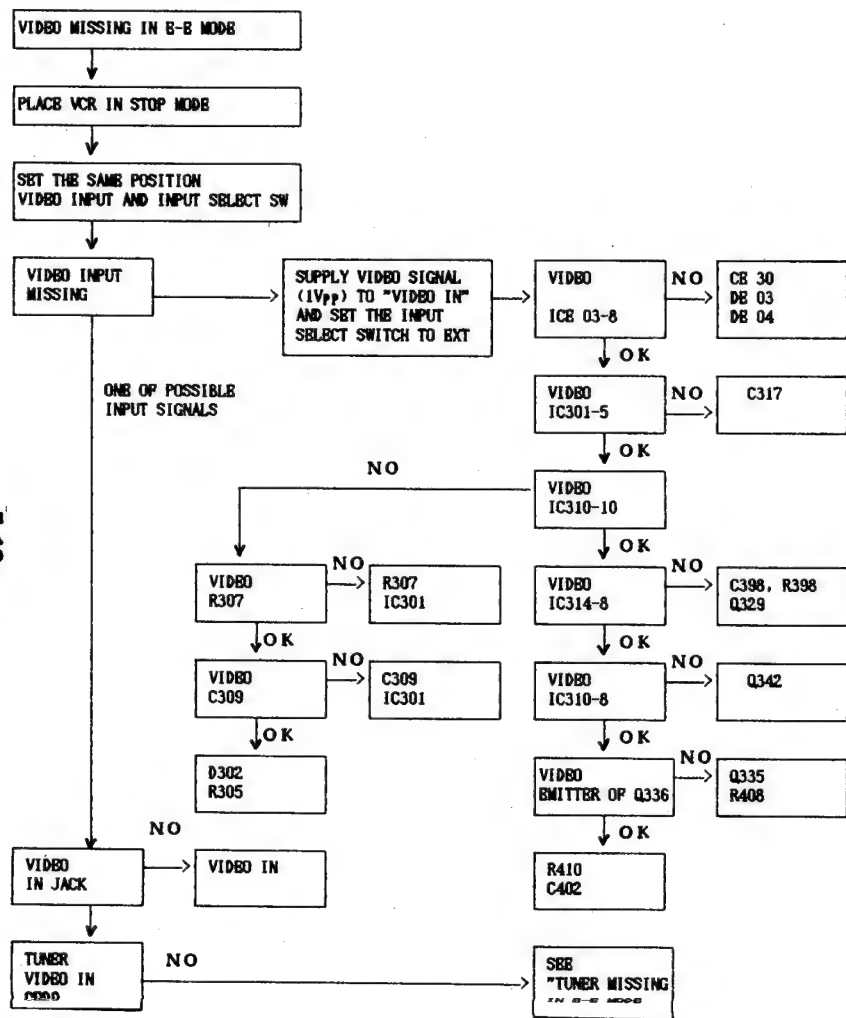
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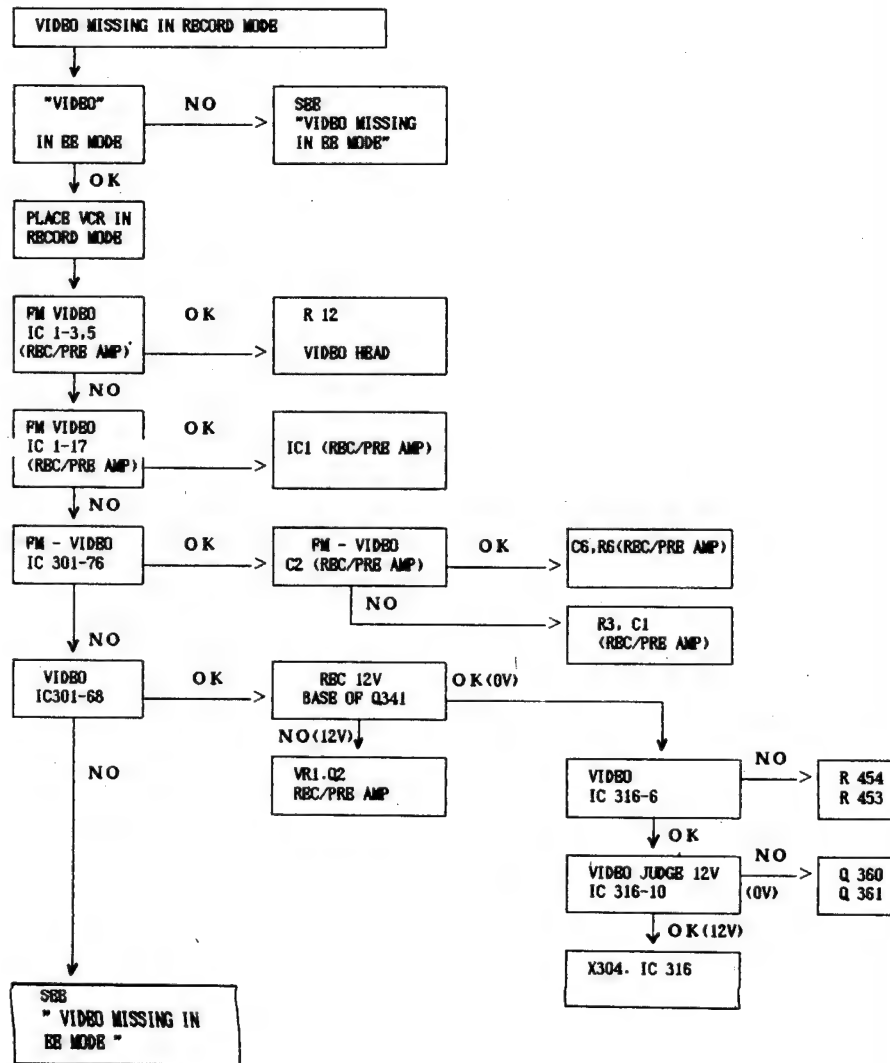
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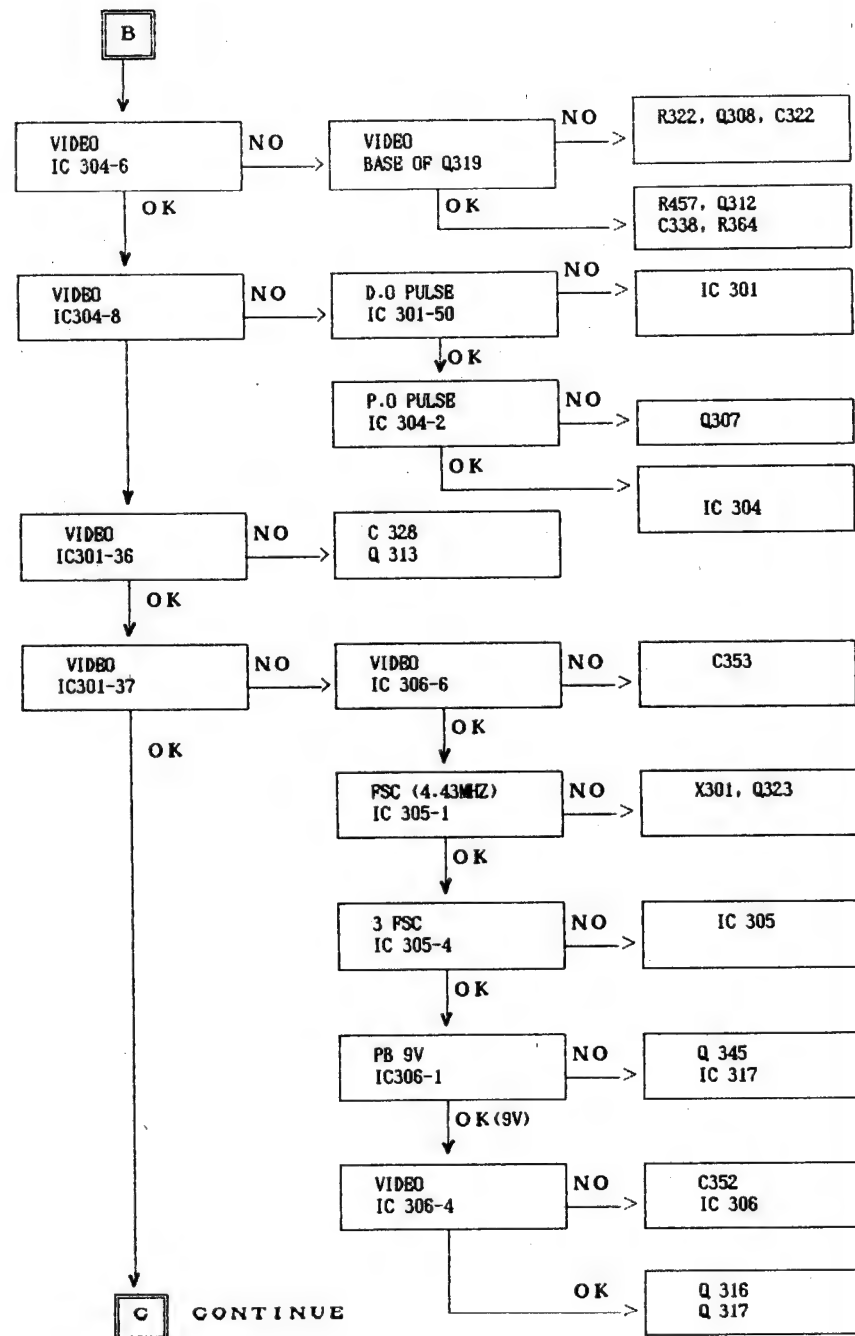
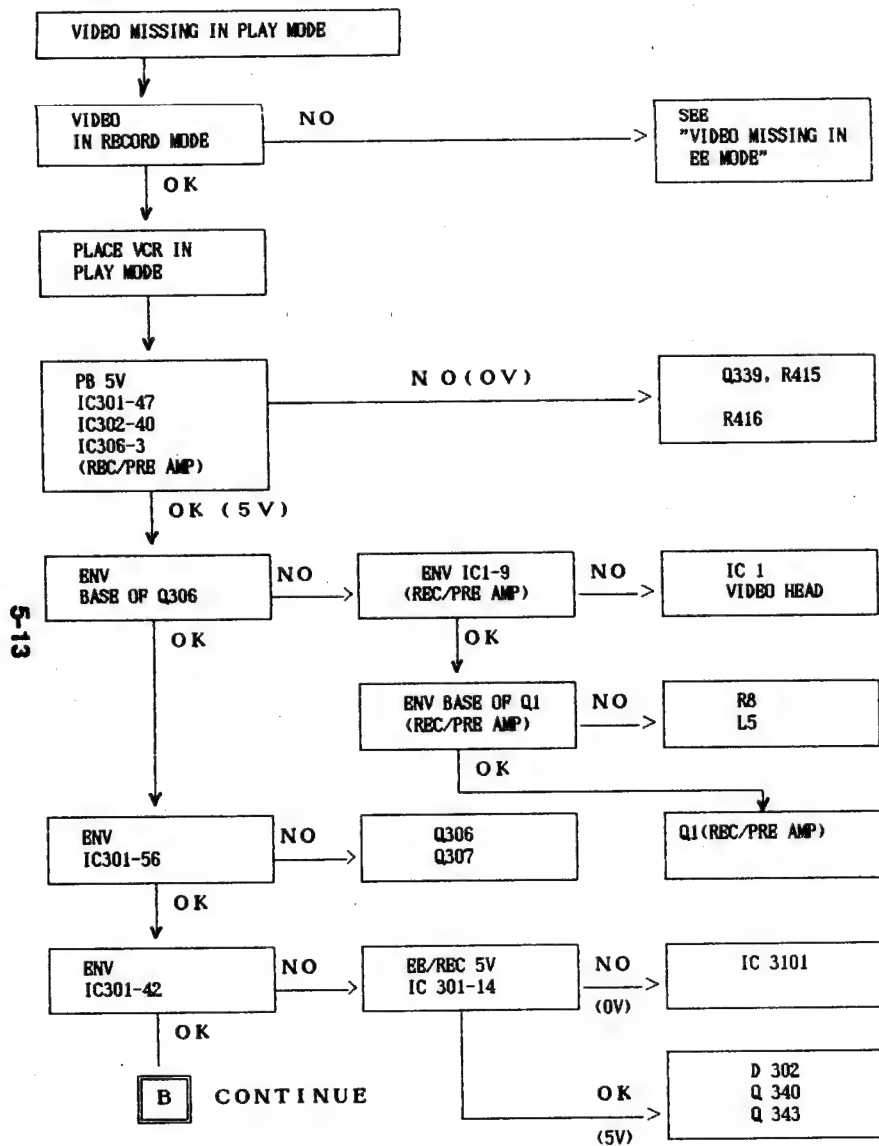


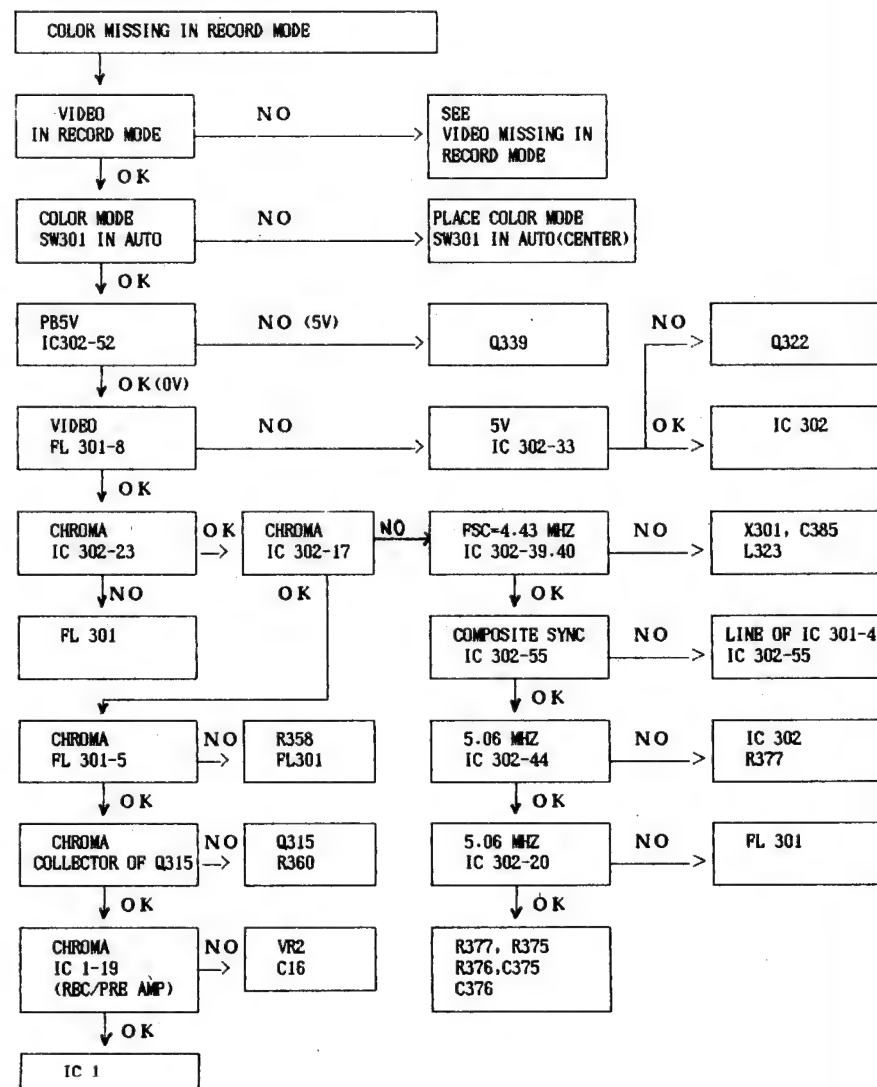
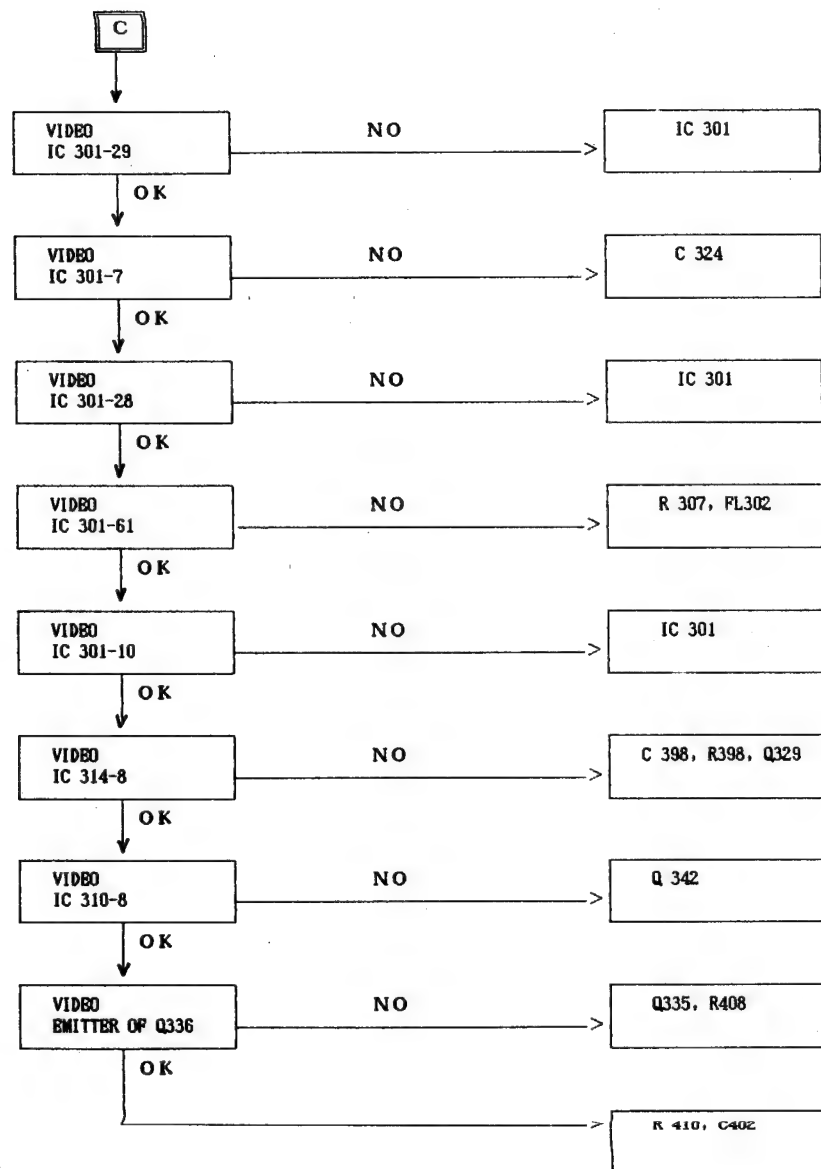
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5-2-15

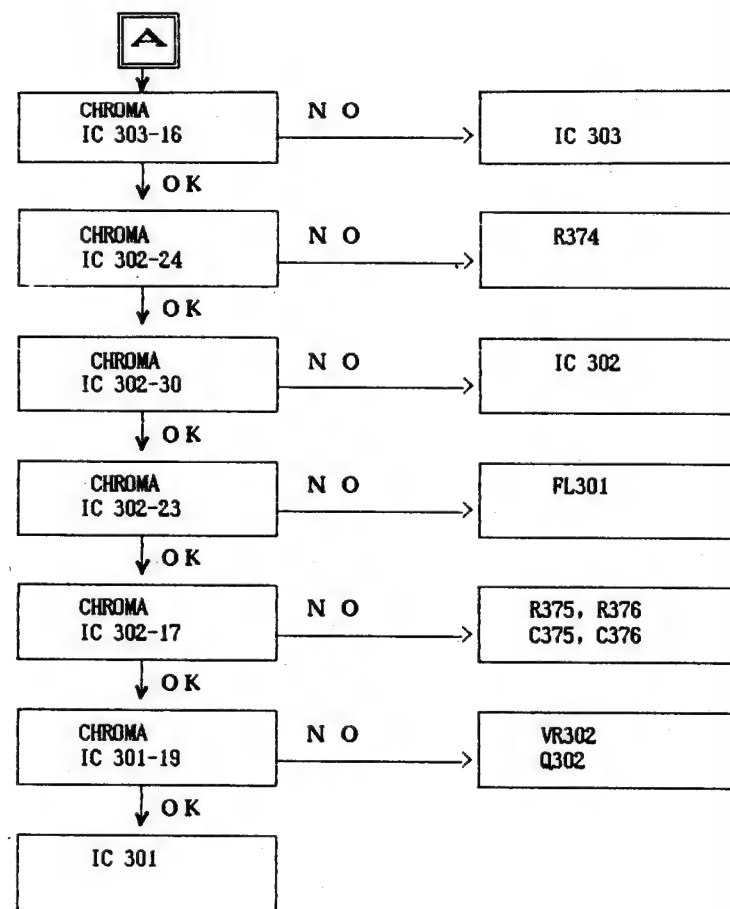
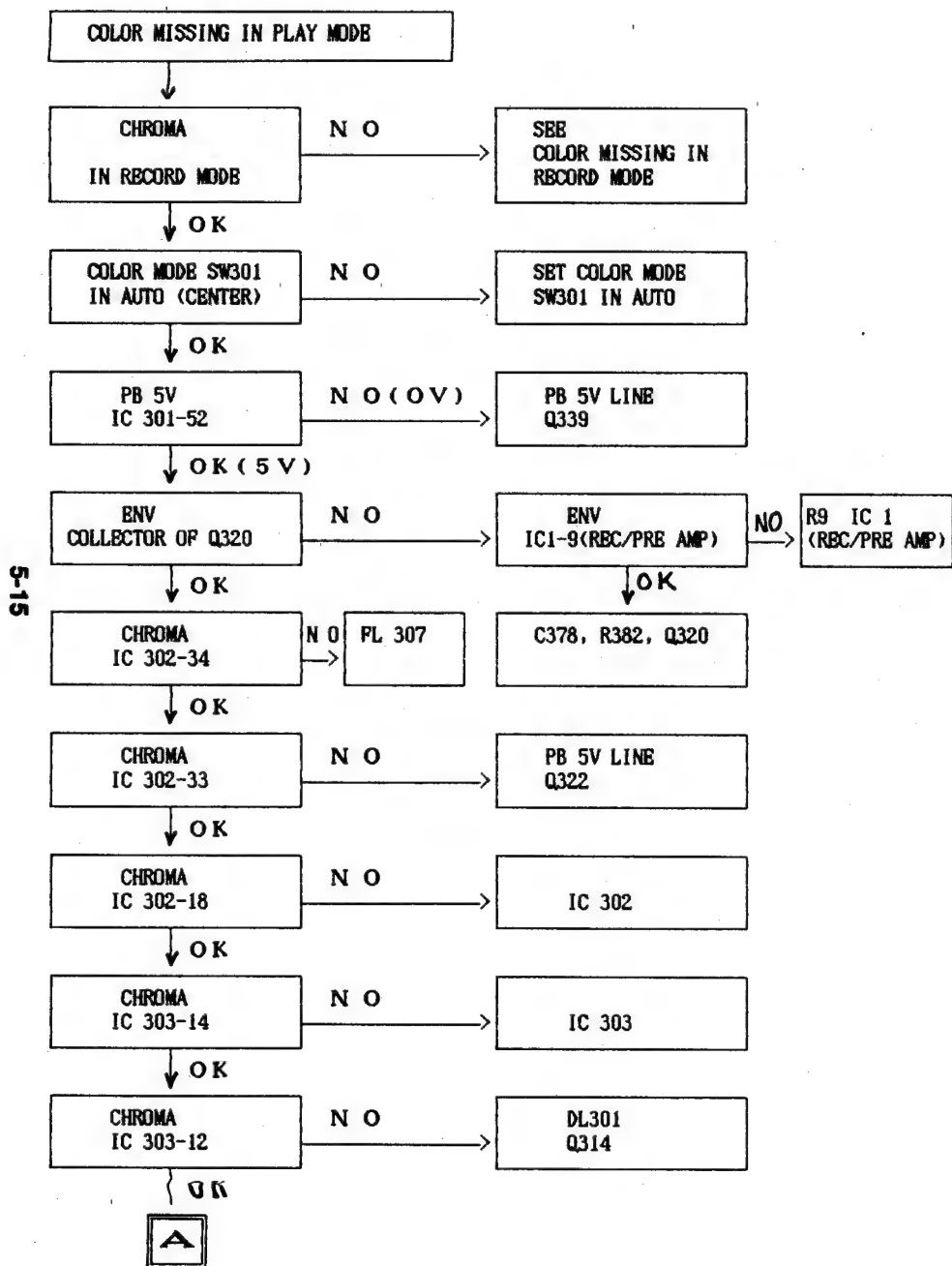


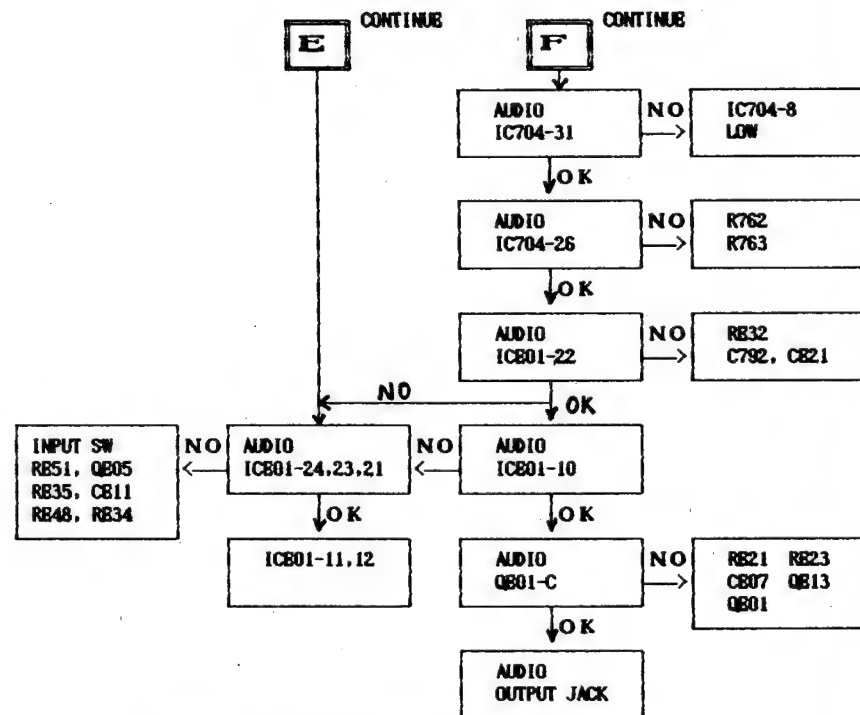
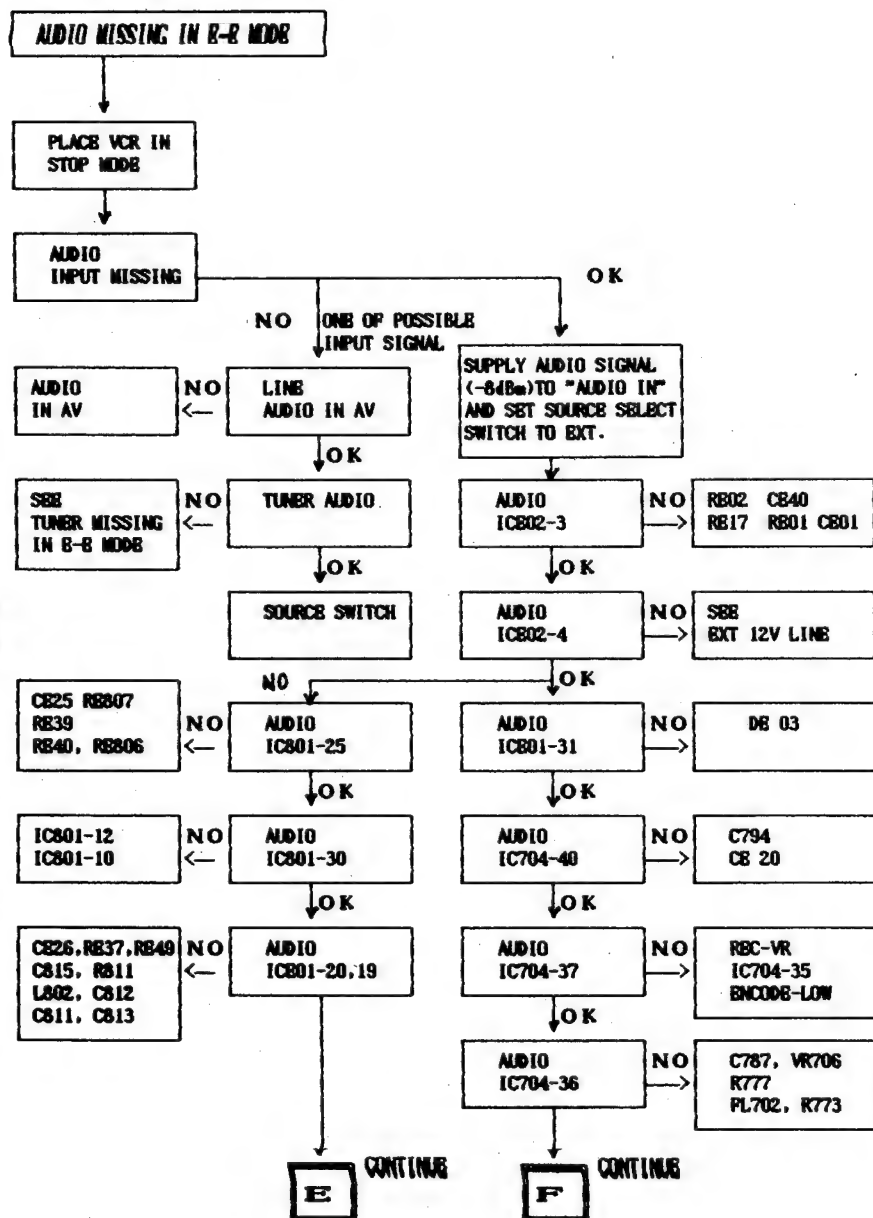






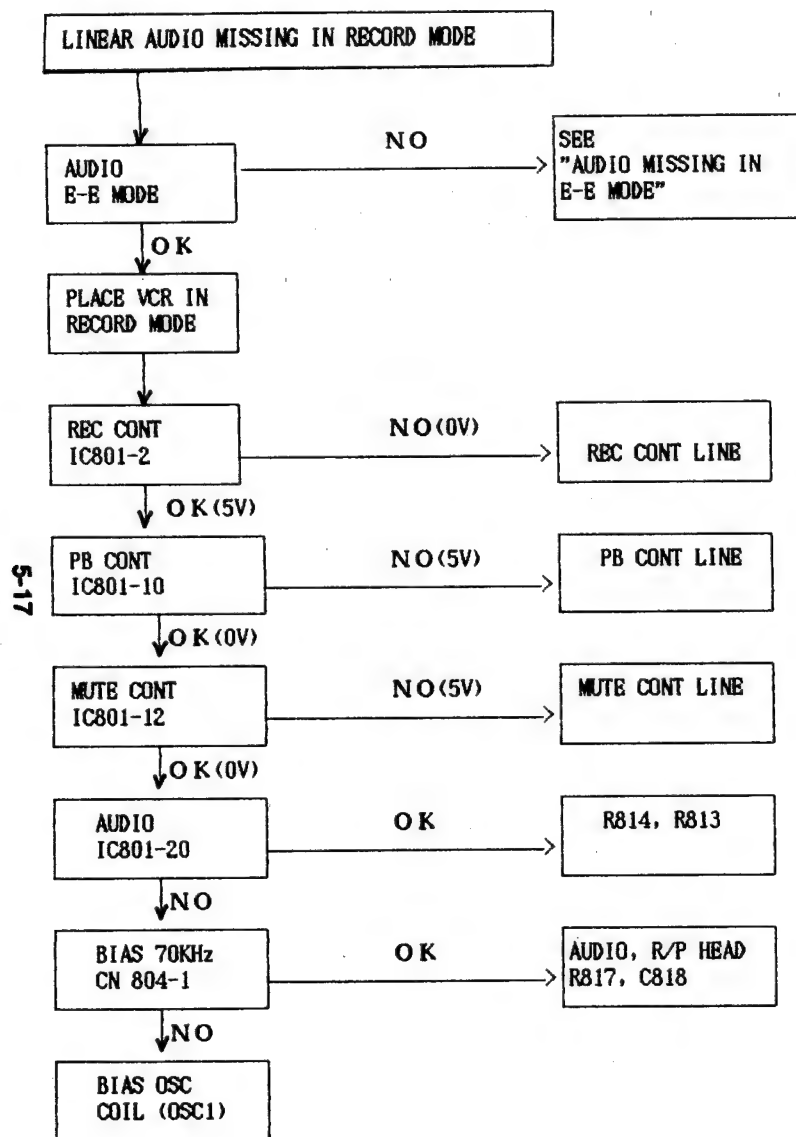
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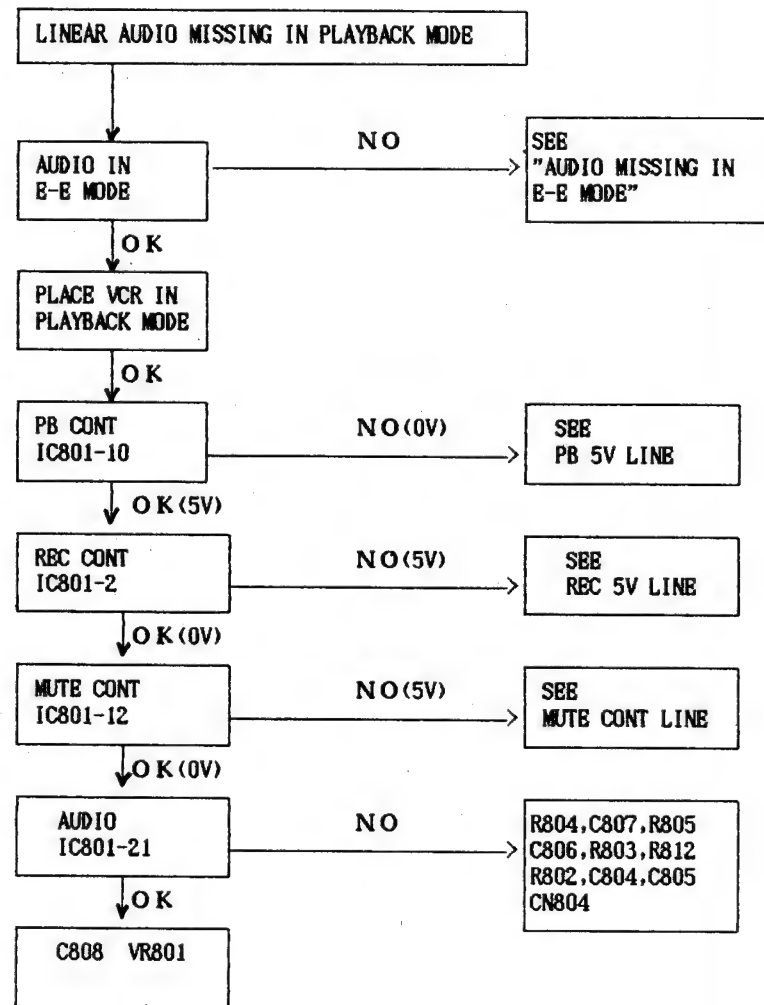


NOTES: IT IS ALSO THE CASE WITH R-CHANNEL

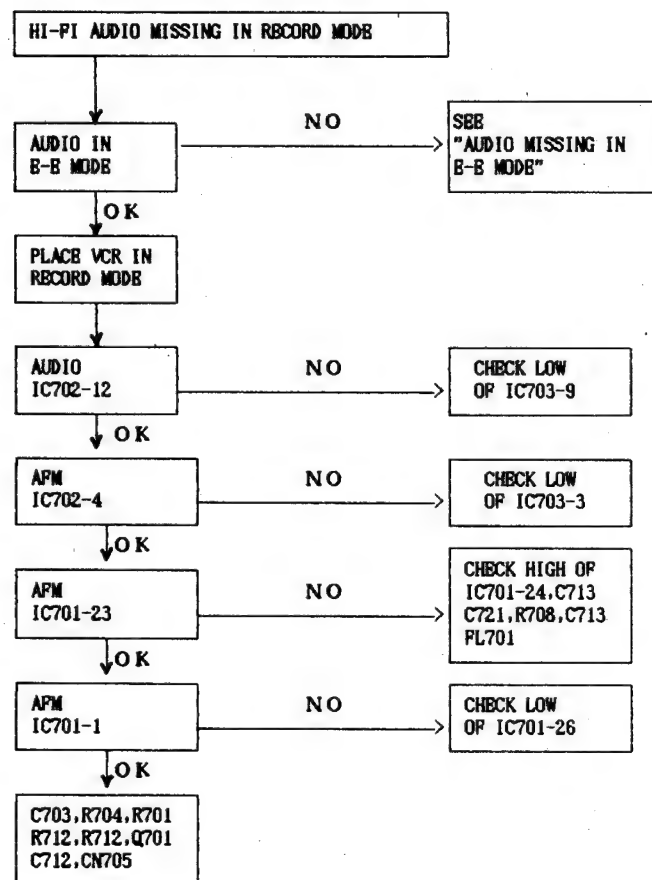
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5-2-21

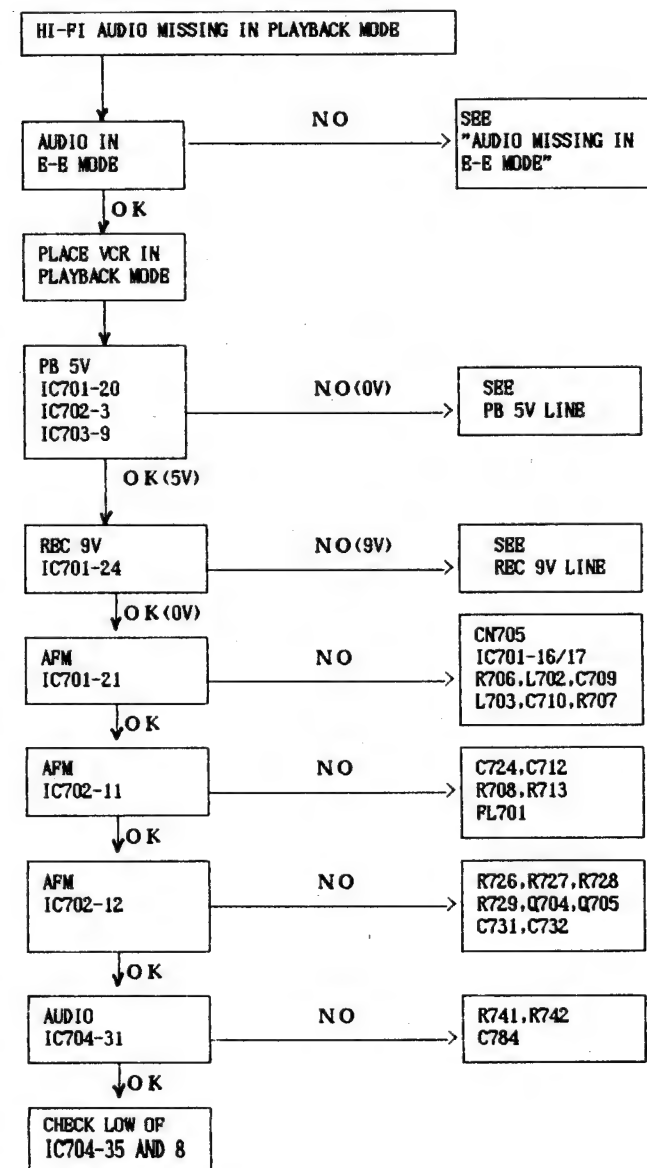


5-2-22.



NOTES) IT IS ALSO THE CASE WITH R-CHANNEL

5-2-23.



NOTES) IT IS ALSO THE CASE WITH R-CHANNEL

## 6. REPLACEMENT PARTS LIST

LOCA.NO	PART-NUMBER	DESCRIPTION/SPECIFICATION	REMARK	LOCA.NO	PART-NUMBER	DESCRIPTION/SPECIFICATION	REMARK
TRANSPORT MECHANISM ASSEMBLY							
201	66120-600-230	MECHA CHASSIS ASST:SECC+SUS	S.N.A	260	65204-604-410	LOADING GEAR R:DURANEX #2002	
206	65234-600-420	REEL DISK(R) ASSY:POM+SUS		263	66052-600-310	IDLER CLUTCH ASSY:D7-NR2A	
207	65234-600-520	REEL DISK(S) ASSY:POM+SUS		289	64769-160-161	MOTOR CAPSTAN:VFC 1510 CL	
209	66674-617-810	SPRING TENSION:D7-NR2A		268	65124-600-011	CAPSTAN HOLDER ASSY:PC 30X GF	
210	65254-608-410	ARM TENSION ASSY:SECC+SUS304		269	65224-602-130	CAP FLYWHEEL ASSY:ZDC2+SUS	
211	65274-601-310	TENSION BAND ASSY:D7-NR2A		270	66614-614-610	BRKT -PHOTO IN:SECC 1.6T	
212	69000-280-142	ASSY P/B LOADING ARM (L):D-8		271	65274-600-811	CAPSTAN BELT:DC-66	
213	66613-605-720	POLE BASE L ASSY:ZAMARK2+SUS		272	65274-600-720	IDLER BELT:CR-65	
214	65223-700-330	GUIDE ROLLER ASSY:SUS304+POM		273	65253-602-010	PLATE MAIN SLIDE:SECC 20/20	
215	69000-280-141	ASSY P/B LOADING ARM (R):D-8		274	65253-602-120	I.B SLIDE ASSY:SECC+SUS+SUS	
216	66613-605-820	POLE BASE R ASSY:ZAMARK2+SUS		275	66834-602-510	SLIDE STOPPER:CY-65	
217	65254-610-830	REVIEW ARM ASSY:SECC+SUS		276	66674-613-110	SPRING I.B SLIDE:SUS304-WPB	
218	67224-602-010	NUT-NYLON:M3X0.5 FE FZY		277	69000-270-089	ASSY LOADING MOTOR:D7-NR2A	
219	66674-611-810	SPRING REVIEW ARM:SUS304-WPB		280	66824-600-610	TIE BAND:NYLON 616.100	
220	69000-271-010	ASSY-HOLDER LED:D7-NR2A		281	69000-270-109	ASSY PHOTO INTERRUPTER : G-8 M4	
221	66604-609-210	HOLDER LED:ABS		282	63053-607-161	LEAD CON. ASSY:1429 #26 RED 210 CN207	
222	62309-112-020	LED-IR:LN59		285	63053-607-151	LEAD CON. ASSY:14229#26 WHT 320CN209	
223	63053-607-110	LEAD CON. ASSY:1429 #26 BLU 160CN211		286	63053-607-132	LEAD CON. ASSY:1429 #26 BLU 380 CN210	
225	66674-611-510	SPRING TORSION A/C:SUS304-WPB		905	67000-130-171	SCREW-PH:M3X3 FE FZY	
226	67304-600-010	WASHER-PLAIN:SPG		906	67000-130-061	SCREW-PH:M3X6 FE FZY	
228	69000-280-143	A/C HEAD ASSY : D-8 PH5B		907	67004-100-710	SCREW-PH:M3X4 FE FZY	
229	66674-614-710	SPRING ROLLER SUPPLY:D7-NR2A		911	67009-130-051	SCREW-PH:M3X5 FE FZY	
230	66614-611-510	HOLDER A/C HEAD:SECC		914	67094-700-710	SCREW-PH:M3X6 FE FZY	
231	66674-710-010	SPRING A/C HEAD:SUS WPA		953	67304-103-430	WASHER-PLAIN:3.2X6X0.13 POLY SLIDE	
232	67094-701-410	SCREW-A/C HEAD:SUS32 P15		955	67304-700-610	WASHER PLAIN:4.2X8X0.5 POLY SLIDE	
234	64079-303-062	MAGNETIC HEAD F/E:VTR-IX2ERS11-072		956	66864-600-410	WASHER-DUST:6X0.5 POLY AMID	
235	65253-602-210	ARM F/E HEAD:D7-NR2A		973	67358-102-506	RING-E:PI2.5 STSC304-CSP	
236	66674-614-510	SPRING ARM ERASE:D7-NR2A		Q005	62309-110-243	PHOTO-INTERRUPTER:WJL5141EA	
237	65224-602-410	BUSH ROLLER SUPPLY:D7-NR2A		HOUSING ASSEMBLY			
238	65164-700-420	FLANGEUPPER:SUS 316 CSP		501	66122-700-502	HOUSING ASSEMBLY	
239	65224-703-220	ROLLER SUPPLY:POM		503	66022 600 320	SIDE CHASSIS(R):ANS G20	S.N.A
240	65224-703-510	INNER-SUPPLY:C3604BD		504	66122-601-210	SIDE CHASSIS(L):ABS BLK	S.N.A
241	67208-213-001	NUT-HEX:2-M3X0.5 FE FZY	S.N.A	505	66463 601 210	CASSETTE-GUIDE:ABS(BLK)	S.N.A
242	66114-600-310	BRKT JOINT PCB:SPG T1.2		506	65104 612 010	RELAY SHAFT:SUS-2	S.N.A
244	66674-613-110	SPRING I.B SLIDE:SUS304-WPB		507	65204 603 010	RELAY GUIDE(R):CURACON(M90-44)	S.N.A
246	65264-601-120	PINCH ROLLER ASSY:TCR-65		508	65204 603 120	RELAY GEAR(L):DURACON(M90-44)	S.N.A
247	65253-609-120	PINCH ROLLER ARM ASSY:SECC+SUS		509	65254 609 510	MASK CAM LEVER:DURACON(M90-44)	S.N.A
248	66674-611-720	SPRING PINCH ARM:SUS 304-WPB		510	69000 470 110	ASSY CASSETTE HOLDER:F/L SYSTEM(G7)	
249	65254-612-910	BRAKE MAIN(R) ASSY:D7-NR2A		511	66132 600 110	CASSETTE HOLDER:SECC-E20/20 T1.2	
250	65254-613-010	BRAKE MAIN(L) ASSY:D7-NR2A		512	66054 604 310	KEY-CASSETTE:DURACON+SUS 304 T0.5	
251	66674-611-910	SPRING MAIN BRAKE:SUS304-WPB		513	66674 612 610	CASSETTE HOLDER SPR:SVS 304 T0.15	
252	65254-608-720	BRAKE SUB(R) ASSY:DURANEX+SUS 420J2		514	65104-612-110	HOLDER SHAFT(R):SUS-2(H)	
254	65253-604-010	SUB BRAKE L ASSY:POM+SUS		515	65104-612-210	HOLDER SHAFT(L):SUS-2(H)	
255	66674-612-110	SPRING SUB BRAKE(L):SUS304-WPB		516	65104-612-310	GUIDE PIN(R):SUS-2(H)	
265	66604-623-420	HEAT SINK B:A20179 FLAT		517	65104-612-410	GUIDE PIN(L):SUS-2(H)	
278	69000-280-148	ASSY-JOINT BOARD:VX-750		518	65104-612-510	VERTICAL GUIDE PIN:SUS-2(H)	
283	67224-602-210	CAM ADJUST:ALLOY 5		519	66152 600 110	UPPER CHASSIS:SEC-E 20/20 1.0	
284	66674-624-610	SPRING-ADJUST:SUS304-WPB		520	66674 600 110	GROUND-PLATE TOP:PBPSP T0.15	
295	66464-601-100	BRAKE WEAK(T):M90-44(WHT)		521	65202 600 220	SIDE ARM(R):DURACON(M90-44)	
296	66674-625-000	SPRING BRAKE WEAK(T):SUS 304 WPB		522	66674 616 410	ARM TORSION SPRING R:SWP-B P1.0	
402	66604-624-920	HOLDER TR ASSY:A20179+SUS304		523	65202 600 320	SIDE ARM(L):DURACON(M90-44)	
404	64769-052-057	MOTOR DRUM:VDB1215AL		524	66674 616 310	ARM TORSION SPRING L:SWP-B P1.0	
450	69010-123-351	DRUM ASSY:G8-PH4		525	65203 603 730	ARM GEAR:ESLON P8T(ES830S)	
451	69000-370-053	ASSY BASE DRUM:R7NR20-HC		526	66664 605 510	ARM GEAR PIN:SUS 420 J2-8	
452	69000-370-080	ASSY LOWER DRUM:G8-PH4		527	66674 616 610	EJECT SPRING:SWP-B	
453	69000-370-087	ASSY UPPER DRUM:G8-PH4		528	65203 602 210	WORM GEAR HOUSING:DURACON	
915	67000-4-100-810	SCREW-PH:M2.6X4 FE FZY		529	65203-600-910	TIMING GEAR:DURACON(M90-44)	
903	67000-130-061	SCREW-PH:M3X8 FE FZY		530	66253-602-310	BRKT HOUSING:SPG T1.0	S.N.A
904	67000-130-040	SET SCREW:M2X3 FE FZ8		531	66463 601 310	LID OPENER:DURACON(M90-44)	
906	67000-130-061	SCREW-PH:M3X6 FE FZY		532	66674 616 510	LID OPENER SPRING:SWP-B P10.5	
907	67000-4-100-710	SCREW-PH:M3X4 FE FZY		534	66674 602 810	MASK-SPRING:SUS 304	
911	67000-130-051	SCREW-PH:M3X5 FE FZY		535	63569 700 210	REC SAFETY-S/W:MSW-1465 NBKU	
912	67000-126-081	SCREW-PH:M2.6X8 FE FZY		536	63054 220 400	LEAD WIRE:1429 #26 GRAY 365	S.N.A
913	67000-123-181	SCREW-PH:M2.3X18 FE FZY		537	63054 220 410	LEAD WIRE:1429 #26 BLUE 183	S.N.A
914	67000-4-700-710	SCREW-PH:M3X6 FE FZY		538	63569 700 325	CASSETTE-S/W:MSW-1429CA(0.15T)	
915	67000-4-100-810	SCREW-PH:M2.6X4 FE FZY		539	63054 220 420	LEAD WIRE:1429 #26 BROWN 195	S.N.A
917	67000-4-700-620	SCREW-BH:M3X7.5 BSW3 WP NI		540	63054 220 430	LEAD WIRE:1420 #26 BLACK 180	S.N.A
921	67100-330-061	SCREW-PH:M3X6 TAP TITE		541	63005 006 455	PWB-SENSOR(E):94V0 1.6TX20.5X25(G08)	S.N.A
923	67000-4-700-720	SCREW-PH:2-3X8 FE FZY		542	63054 220 440	LEAD WIRE:1429 #26 BLUE 288	S.N.A
956	67304-103-410	WASHER-PLAIN:3.2X6X0.5 POLYSLIDER		543	63054 220 450	LEAD WIRE:1429 #26 RED 280	S.N.A
953	67304-103-430	WASHER-PLAIN:3.2X6X0.13 POLY SLIDE		544	63054 220 460	LEAD WIRE:1429 #26 ORANGE 285	S.N.A
954	67304-600-410	WASHER-PLAIN:PI3.1P18*T0.5		545	63005 005 032	PWB-SENSOR(S):94V0 1.6TX45X35(G-7)	S.N.A
957	67334-600-310	SLIT WASHER:PI2.5XPI5.2XT0.5		546	63054-212-410	GROUND WIRE ASSY:17/0.26 BLK	S.N.A
958	67334-600-410	SLIT WASHER:PI3.2XPI6XT0.5		548	69000-470-310	ASSY-TAKE UP END SENSOR:F/L SYSTEM	
960	67334-600-320	SLIT WASHER:02.5*09*0.5		908	67004-101-415	SCREW-BH:M3X5 FE FZY	
964	67304-103-420	WASHER-PLAIN:3.2X6X0.25 POLY SLIDER		909	67154 101 420	SCREW TAP PH:M2S-M3X4.5 FE FZY	
971	67358-103-006	RING-E:PI3 STSC304-CSP		910	67100 600 010	SCREW TAP BH:2S-M3X5 FE FZY	
BOTTOM SIDE MECHANISM				905	63053 612 615	LEAD CON. ASSY:Y:1429 #26 RED150 CN206	S.N.A
202	66114-600-010	BRKT A:SECC 20/20		Q001	62139 701 020	TRANSISTOR:KSR2001	
203	66114-600-110	BRKT B:SECC 20/20		Q002	62139 701 020	TRANSISTOR:KSR2001	
204	66114-600-420	BRKT BACK:SECC T1.6		Q003	62139 401 055	TR-PHOTO:PN202S(R)	
206	66604-626-310	HEAD BRUSH ASSY(G8):0.8+DAMPER+P.B		Q004	62139 401 055	TR-PHOTO:PN202S(R)	
256	65204-604-210	LOADING GEAR L:M90 44		547	69000 470 410	ASSY-SUPPLY END SENSOR:F/L SYSTEM	

\*S.N.A :SERV NOT AVAILABLE.

LOCA-NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA-NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
INSTRUMENT ASSEMBLY SVX-319				INSTRUMENT ASSEMBLY VI-770			
1	69000-173-001	ASSY PANEL FRONT:SVX-319/SEG ABS 94HB		1	69000-183-002	ASSY PANEL FRONT:VI-770/SEUK ABS 94HB	
2	67601-606-510	PANEL FRONT:ABS 94HB(VX-770)BLK	S.N.A	2	67601-606-510	PANEL FRONT:ABS 94HB(VX-770)BLK	S.N.A
10A	67624-629-710	KNOB DUMMY(A):ABS 94HB(VX-770)BLK	S.N.A	10A	67624-629-710	KNOB DUMMY(A):ABS 94HB(VX-770)BLK	S.N.A
10B	67623-620-710	KNOB DUMMY(B):ABS 94HB(VX-770)BLK	S.N.A	10B	67623-620-720	KNOB DUMMY(B):ABS 94HB(VI-770/UK)BLK	S.N.A
10C	67624-629-210	KNOB DUMMY(C):ABS 94HB(VX-770)BLK	S.N.A	10C	67624-629-220	KNOB DUMMY(C):ABS 94HB(VI-770/UK)BLK	S.N.A
12	67624-629-410	KNOB CHANNEL:ABS 94HB(VX-770)BLK	S.N.A	12	67624-629-410	KNOB CHANNEL:ABS 94HB(VX-770)BLK	S.N.A
13	67623-621-110	KNOB TIMER:ABS 94HB(VX-770)BLK	S.N.A	13	67623-621-110	KNOB TIMER:ABS 94HB(VX-770)BLK	S.N.A
16A	67623-620-810	KNOB FUN(A):ABS 94HB(VX-770)BLK SI1	S.N.A	16A	67623-620-820	KNOB FUN(A):ABS 94HB(VI-770/UK)BLK SI1	S.N.A
16B	67623-620-910	KNOB FUN(B):ABS 94HB(VX-770)BLK	S.N.A	16B	67623-620-910	KNOB FUN(B):ABS 94HB(VX-770)BLK	S.N.A
16C	67623-621-010	KNOB FUN(C):ABS 94HB(VX-770)BLK	S.N.A	16C	67623-621-010	KNOB FUN(C):ABS 94HB(VX-770)BLK	S.N.A
19	67624-629-310	KNOB POWER:ABS 94HB(VX-770)BLK	S.N.A	19	67624-629-310	KNOB POWER:ABS 94HB(VX-770)BLK	S.N.A
27	67624-629-510	KNOB SLIDE(L):ABS 94HB(VX-770)BLK	S.N.A	27	67624-629-510	KNOB SLIDE(L):ABS 94HB(VX-770)BLK	S.N.A
28	67624-629-610	KNOB SLIDE(R):ABS 94HB(VX-770)BLK	S.N.A	28	67624-629-610	KNOB SLIDE(R):ABS 94HB(VX-770)BLK	S.N.A
51	67642-900-400	ASSY-DOOR FRONT:VX-770 LCD OSD VPS	S.N.A	51	67642-900-400	ASSY-DOOR FRONT:VI-770/UK	S.N.A
72	67654-617-610	INDICATOR POWER:VX-770 ACRYL(WHITE)	S.N.A	72	67654-617-610	INDICATOR POWER:VX-770 ACRYL(WHITE)	S.N.A
80A	67654-616-920	WINDOW DISPLAY(A):PVC 1.0T(VX-770)	S.N.A	80A	67654-616-920	WINDOW DISPLAY(A):PVC 1.0T(VI-770)	S.N.A
80B	67654-617-010	WINDOW DISPLAY(B):PVC 1.0T(VX-770)	S.N.A	80B	67654-617-040	WINDOW DISPLAY(B):PVC 1.0T(VI-770)	S.N.A
83	67614-608-210	INLAY-CONTROL:PVC T0.5(VX-770) SI2	S.N.A	83	67614-608-220	INLAY-CONTROL:PVC T0.5(VI-770) SI2	S.N.A
122	69098-600-734	REGULATOR ASSY:VX-770 G8W PAL HI-FI		122	69098-600-856	REGULATOR ASSY:VI-770 G8W PAL HI-FI	
130	66020-601-520	FRAME:HIPS 94HB	S.N.A	130	66020-601-520	FRAME:HIPS 94HB	S.N.A
131	66612-601-710	BOTTOM-COVER:SECC T0.5		131	66612-601-710	BOTTOM-COVER:SECC T0.5	
134	66002-602-010	TOP-CABINET:HISH T0.85*580*375 G-8WH		134	66002-602-010	TOP-CABINET:HISH T0.85*580*375 G-8WH	
140	69002-603-004	ASSY-MAIN C:VX-770 PAL HI-FI AUDIO		140	69002-603-004	ASSY-MAIN C:VX-770 PAL HI-FI AUDIO	
137	69057-603-007	ASSY MAIN A:SVX-319 PAL HI-FI VIDEO/10		137	69057-603-736	ASSY MAIN A:VI-770 PAL HI-FI VIDEO/10	
138	69002-603-040	ASSY-MAIN B:VX-770 HI-FI SYS/SER/LNR AUD		138	69002-603-070	MAIN B:VI-770 PAL HI-FI SYS/S/L	
141	69000-603-002	ASSY TUNER:PAL B/G.MTS.NEC TUNER		141	69000-603-004	ASSY TUNER:PAL I MONO.NEC TUNER	
142	66634-602-610	CLAMPER WIRE:PE BLK		142	66634-602-610	CLAMPER WIRE:PE BLK	
143	66614-714-310	BRKT-GUIDE TOP S:SPG T1.0		143	66614-714-310	BRKT-GUIDE TOP S:SPG T1.0	
144	66114-600-710	BRKT PREAMP(VX-750):SECC 0.8T		144	66114-600-710	BRKT PREAMP(VX-750):SECC 0.8T	
151	69871-603-201	ASSY-FUNCTION/TIMER:MTS.VPS		151	69871-603-201	ASSY-FUNCTION/TIMER:	
160	66664-608-110	HINGE-MAIN PCB:NYLON6	S.N.A	160	66664-608-110	HINGE-MAIN PCB:NYLON6	S.N.A
172	64544-612-910	PLATE GROUND JACK:SUS304 T0.1(SV-9900)		172	64544-612-910	PLATE GROUND JACK:SUS304 T0.1(SV-9900)	
173	64544-616-210	PLATE GROUND:SUS 304 T0.15(VX-770)		173	64544-616-210	PLATE GROUND:SUS 304 T0.15(VX-770)	
184	67154-101-440	SCREW-TAP.PWH:2-3X10 FE FZY		184	67154-101-440	SCREW-TAP.PWH:2-3X10 FE FZY	
190	67158-240-121	SCREW BH:2-4*12 FE FZY		190	67158-240-121	SCREW BH:2-4*12 FE FZY	
191	67158-240-180	SCREW TAP PWH:2-4*16 FE FZY		191	67158-240-180	SCREW TAP PWH:2-4*16 FE FZY	
194	67158-240-103	SCREW-TAP BH:2S-4*10 FE FZY		194	67158-240-103	SCREW-TAP BH:2S-4*10 FE FZY	
200	69018-150-148	FULL DECK ASSY:D8-PHSB		200	69018-150-148	FULL DECK ASSY:D8-PHSB	
278	69000-280-105	ASSY JOINT BOARD:PAL D8-PHS		278	69000-280-105	ASSY JOINT BOARD:PAL D8-PHS	
454	69812-603-010	ASSY-PRE AMP:2 HEAD G-8W PAL HI-FI		454	69812-603-010	ASSY-PRE AMP:2 HEAD G-8W PAL HI-FI	
501	66122-700-502	HOUSING ASSY:F/L SYSTEM		501	66122-700-502	HOUSING ASSY:F/L SYSTEM	
533	67642-601-192	FRONT-MASK:ACRYL(VX-770)		533	67642-601-192	FRONT-MASK:ACRYL(VX-770)	
INSTRUMENT ASSEMBLY VX-770				INSTRUMENT ASSEMBLY VB-770			
1	69000-183-003	ASSY PANEL FRONT:VX-770 ABS 94HB		1	69000-183-003	ASSY PANEL FRONT:VB-770 ABS 94HB	
2	67601-606-510	PANEL FRONT:ABS 94HB(VX-770)BLK	S.N.A	2	67601-606-510	PANEL FRONT:ABS 94HB(VX-770)BLK	S.N.A
10A	67624-629-710	KNOB DUMMY(A):ABS 94HB(VX-770)BLK	S.N.A	10A	67624-629-710	KNOB DUMMY(A):ABS 94HB(VX-770)BLK	S.N.A
10B	67623-620-710	KNOB DUMMY(B):ABS 94HB(VX-770)BLK	S.N.A	10B	67623-620-710	KNOB DUMMY(B):ABS 94HB(VX-770)BLK	S.N.A
10C	67624-629-210	KNOB DUMMY(C):ABS 94HB(VX-770)BLK	S.N.A	10C	67624-629-210	KNOB DUMMY(C):ABS 94HB(VX-770)BLK	S.N.A
12	67624-629-410	KNOB CHANNEL:ABS 94HB(VX-770)BLK	S.N.A	12	67624-629-410	KNOB CHANNEL:ABS 94HB(VX-770)BLK	S.N.A
13	67623-621-110	KNOB TIMER:ABS 94HB(VX-770)BLK	S.N.A	13	67623-621-110	KNOB TIMER:ABS 94HB(VX-770)BLK	S.N.A
16A	67623-620-810	KNOB FUN(A):ABS 94HB(VX-770)BLK SI1	S.N.A	16A	67623-620-810	KNOB FUN(A):ABS 94HB(VX-770)BLK SI1	S.N.A
16B	67623-620-910	KNOB FUN(B):ABS 94HB(VX-770)BLK	S.N.A	16B	67623-620-910	KNOB FUN(B):ABS 94HB(VX-770)BLK	S.N.A
16C	67623-621-010	KNOB FUN(C):ABS 94HB(VX-770)BLK	S.N.A	16C	67623-621-010	KNOB FUN(C):ABS 94HB(VX-770)BLK	S.N.A
19	67624-629-310	KNOB POWER:ABS 94HB(VX-770)BLK	S.N.A	19	67624-629-310	KNOB POWER:ABS 94HB(VX-770)BLK	S.N.A
27	67624-629-510	KNOB SLIDE(L):ABS 94HB(VX-770)BLK	S.N.A	27	67624-629-510	KNOB SLIDE(L):ABS 94HB(VX-770)BLK	S.N.A
28	67624-629-610	KNOB SLIDE(R):ABS 94HB(VX-770)BLK	S.N.A	28	67624-629-610	KNOB SLIDE(R):ABS 94HB(VX-770)BLK	S.N.A
51	67642-900-410	ASSY-DOOR FRONT:VX-770 LCD OSD	S.N.A	51	67642-900-410	ASSY-DOOR FRONT:VX-770 LCD OSD	S.N.A
72	67654-617-610	INDICATOR POWER:VX-770 ACRYL(WHITE)	S.N.A	72	67654-617-610	INDICATOR POWER:VX-770 ACRYL(WHITE)	S.N.A
80A	67654-616-910	WINDOW DISPLAY(A):PVC 1.0T(VX-770)	S.N.A	80A	67654-616-910	WINDOW DISPLAY(A):PVC 1.0T(VX-770)	S.N.A
80B	67654-617-010	WINDOW DISPLAY(B):PVC 1.0T(VX-770)	S.N.A	80B	67654-617-010	WINDOW DISPLAY(B):PVC 1.0T(VX-770)	S.N.A
83	67614-608-210	INLAY-CONTROL:PVC T0.5(VX-770) SI2	S.N.A	83	67614-608-210	INLAY-CONTROL:PVC T0.5(VX-770) SI2	S.N.A
122	69098-600-734	REGULATOR ASSY:VX-770 G8W PAL HI-FI		122	69098-600-734	REGULATOR ASSY:VX-770 G8W PAL HI-FI	
130	66020-601-520	FRAME:HIPS 94HB	S.N.A	130	66020-601-520	FRAME:HIPS 94HB	S.N.A
131	66612-601-710	BOTTOM-COVER:SECC T0.5		131	66612-601-710	BOTTOM-COVER:SECC T0.5	
134	66002-602-010	TOP-CABINET:HISH T0.85*580*375 G-8WH		134	66002-602-010	TOP-CABINET:HISH T0.85*580*375 G-8WH	
140	69002-603-004	ASSY-MAIN C:VX-770 PAL HI-FI AUDIO		140	69002-603-004	ASSY-MAIN C:VX-770 PAL HI-FI AUDIO	
137	69057-603-735	ASSY MAIN A:VX-770 PAL HI-FI VIDEO/10		137	69057-603-737	ASSY MAIN A:VX-770 PAL HI-FI VIDEO/10	
138	69002-603-070	ASSY-MAIN B:VX-770 HI-FI SYS/SER/LNR AUD		138	69002-603-040	ASSY-MAIN B:VX-770 HI-FI SYS/SER/LNR AUD	
141	69000-603-002	ASSY TUNER:PAL B/G.MTS.NEC TUNER		141	69000-603-002	ASSY TUNER:PAL B/G.MTS.NEC TUNER	
142	66634-602-610	CLAMPER WIRE:PE BLK		142	66634-602-610	CLAMPER WIRE:PE BLK	
143	66614-714-310	BRKT-GUIDE TOP S:SPG T1.0		143	66614-714-310	BRKT-GUIDE TOP S:SPG T1.0	
144	66114-600-710	BRKT PREAMP(VX-750):SECC 0.8T		144	66114-600-710	BRKT PREAMP(VX-750):SECC 0.8T	
151	69871-603-209	ASSY-FUNCTION/TIMER:MTS		151	69871-603-209	ASSY-FUNCTION/TIMER:MTS	
160	66664-608-110	HINGE-MAIN PCB:NYLON6	S.N.A	160	66664-608-110	HINGE-MAIN PCB:NYLON6	S.N.A
172	64544-612-910	PLATE GROUND JACK:SUS304 T0.1(SV-9900)		172	64544-612-910	PLATE GROUND JACK:SUS304 T0.1(SV-9900)	
173	64544-616-210	PLATE GROUND:SUS 304 T0.15(VX-770)		173	64544-616-210	PLATE GROUND:SUS 304 T0.15(VX-770)	
184	67154-101-440	SCREW-TAP.PWH:2-3X10 FE FZY		184	67154-101-440	SCREW-TAP.PWH:2-3X10 FE FZY	
190	67158-240-121	SCREW BH:2-4*12 FE FZY		190	67158-240-121	SCREW BH:2-4*12 FE FZY	
191	67158-240-180	SCREW TAP PWH:2-4*16 FE FZY		191	67158-240-180	SCREW TAP PWH:2-4*16 FE FZY	
194	67158-240-103	SCREW-TAP BH:2S-4*10 FE FZY		194	67158-240-103	SCREW-TAP BH:2S-4*10 FE FZY	
200	69018-150-148	FULL DECK ASSY:D8-PHSB		200	69018-150-148	FULL DECK ASSY:D8-PHSB	
278	69000-280-105	ASSY JOINT BOARD:PAL D8-PHS		278	69000-280-105	ASSY JOINT BOARD:PAL D8-PHS	
454	69812-603-010	ASSY-PRE AMP:2 HEAD G-8W PAL HI-FI		454	69812-603-010	ASSY-PRE AMP:2 HEAD G-8W PAL HI-FI	
501	66122-700-502	HOUSING ASSY:F/L SYSTEM		501	66122-700-502	HOUSING ASSY:F/L SYSTEM	
533	67642-601-192	FRONT-MASK:ACRYL(VX-770)		533	67642-601-192	FRONT-MASK:ACRYL(VX-770)	
162	66664-605-710	HINGE MAIN		162	66664-605-710	HINGE MAIN	

\* S.N.A : SERVICE NOT AVAILABLE





LOCA. NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA. NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
ASSY FUNCTION TIMER PARTS LIST				SW30	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	69871-603-205	ASSY F/TIMER:PAL HI-FI	:SVX-319	SW31	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	69881-603-209	ASSY F/TIMER:PAL HI-FI	:VX-770	SW32	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	69881-603-209	ASSY F/TIMER:PAL HI-FI	:VB-770	SW33	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	69871-603-201	ASSY F/TIMER:PAL HI-FI	:VI-770	SW34	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	OPTION 1 : ONLY USED FOR " MTS " SYSTEM.			SW35	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	OPTION 5 : ONLY DELETED FOR " VPS " SYSTEM.			SW36	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
				SW38	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
				SW39	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
DT	62319-013-067	DIGITRON:FP 128GM7		SW41	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	66604-626-410	HOLDER LEVEL METER:ABS 94HB (VX-770)BLK		SW42	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	66603-609-610	HOLDER TIMER:ABS 94HB (VX-770)BLK		SW43	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	66604-607-510	HOLDER-POWER:ABS 94HB (VT-T39)		SW44	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	67654-618-410	INDICATOR LEVEL METER:ACRYL(MILK WHITE)		SW45	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	62469-007-120	LEVEL METER:LT1195		SW46	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	63005-006-597	PWB-F/TIMER:1V0 427.5X158X1.6(T)	S.N.A	SW48	63599-016-070	SWITCH-TACT:EVQ-QS2 05K	
	64529-312-040	REMOCON-MODULE:SBX 1483-52		VR102	61203-107-080	VR-ROUND:RK09K1130-500KB(17.5)	
	60649-406-810	TAPE DOUBLE FACE:DAERUK NO-701 W3		VR103	61203-107-070	VR-ROUND:RK09K1130-200KB(17.5)	
	63054-222-080	WIRE-JUMPER(H-WRAP):1007 #26-SOLD WHT 80		VR104	61203-105-006	VR-ROUND:RK09K 1130-10KB	
C101	61407-101-360	C-CERAMIC.TEMP:CC45 SL TAPG 50V 100-J		VR105	61203-105-007	VR-SLIDE:RS30B221J10 KAX2	
C102	61407-105-060	C-CERAMIC.TEMP:CC45 CH TAPG 50V 10-D		XT101	64539-102-012	CERAMIC RESONATOR:FCR 4.0MC	
C103	61407-105-060	C-CERAMIC.TEMP:CC45 CH TAPG 50V 10-D		XT102	64539-021-010	CRYSTAL:P-3(32.768KHZ)	
C104	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M					
C105	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M					
C106	61417-109-210	C-CERAMIC.HK:CK45 F TAPG 50V 0.1M-Z					
C108	61417-104-260	C-CERAMIC.HK:CK45 B TAPG 50V 680-K					
CN-AA	63349-604-170	CONNECTOR WAFER:S3014-0710					
CN-B6	63349-604-140	CONNECTOR WAFER:S3014-0410					
CN101	63349-604-200	CONNECTOR WAFER:S3014-1010					
CN102	63349-604-160	CONNECTOR WAFER:S3014-0610					
CN103	63349-604-190	CONNECTOR WAFER:S3014-0910					
CN104	63349-604-140	CONNECTOR WAFER:S3014-0410					
CN105	63349-604-130	CONNECTOR WAFER:S3014-0310					
CN109	63349-604-130	CONNECTOR WAFER:S3014-0310					
D103	62169-406-482	DIODE:IN4148 SAMSUNG					
D105	62169-406-482	DIODE:IN4148 SAMSUNG					
D106	62169-406-482	DIODE:IN4148 SAMSUNG					
D107	62169-406-482	DIODE:IN4148 SAMSUNG					
D108	62169-406-482	DIODE:IN4148 SAMSUNG					
D109	62169-406-482	DIODE:IN4148 SAMSUNG					
D110	62169-406-482	DIODE:IN4148 SAMSUNG					
D111	62169-406-482	DIODE:IN4148 SAMSUNG					
D112	62169-406-482	DIODE:IN4148 SAMSUNG					
D113	62169-406-482	DIODE:IN4148 SAMSUNG					
D114	62169-406-482	DIODE:IN4148 SAMSUNG					
D115	62169-406-482	DIODE:IN4148 SAMSUNG					
D116	62169-406-482	DIODE:IN4148 SAMSUNG					
D117	62169-406-482	DIODE:IN4148 SAMSUNG					
D118	62169-102-057	SHOTTKY DIODE:ISS108-TA					
D119	62169-102-057	SHOTTKY DIODE:ISS108-TA					
D1191	62169-102-057	SHOTTKY DIODE:ISS108-TA					
D120	62169-102-057	SHOTTKY DIODE:ISS108-TA					
D1201	62169-102-057	SHOTTKY DIODE:ISS108-TA					
D121	62169-102-057	SHOTTKY DIODE:ISS108-TA					
D1211	62169-102-057	SHOTTKY DIODE:ISS108-TA					
D123	62169-406-482	DIODE:IN4148 SAMSUNG					
DL101	62309-110-340	LED:GL-3HD7 (SVX-319,VX-770,VB-770)	OPTION 1				
DL102	62309-110-340	LED:GL-3HD7 (SVX-319,VX-770,VB-770)	OPTION 1				
DL104	62309-110-340	LED:GL-3HD7/GL3HD8					
NVPS	62169-406-482	DIODE:IN4148 (VX-770,VB-770,VI-770)	OPTION 5				
IC101	62119-401-181	IC:MN1280-S					
IC102	62119-401-330	IC:CXX 1012P					
IC103	62119-101-330	IC:TMP47C870N-4731					
R101	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R102	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R103	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R104	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R105	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J					
R106	61048-177-221	R-METAL FILM:RM 1/8TS 220-J					
R107	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R108	61048-177-682	R-METAL FILM:RM 1/8TS 6.8K-J					
SPON	62169-406-482	DIODE:IN4148 SAMSUNG					
SW10	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW102	63519-074-040	SWITCH-SLIDE:KSA-2440A					
SW103	63519-073-021	SW-SLIDE:SSS 322 (SVX-319,VX-770,VB-770)	OPTION 1				
SW104	63519-073-020	SWITCH-SLIDE:SSS 323					
SW105	63519-073-021	SWITCH-SLIDE:SSS 322					
SW107	63519-073-020	SWITCH-SLIDE:SSS 323					
SW12	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW13	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW16	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW17	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW18	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW23	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW25	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW26	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW27	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW28	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					
SW29	63599-016-070	SWITCH-TACT:EVQ-QS2 05K					

\* S.N.A = SERVICE NOT AVAILABLE



LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
ASSY MAIN-A PARTS LIST ( AUDIO I/O.VIDEO.VIDEO OSD.VPS )				LE02	62427-813-101	COIL-PEAKING:EL0607RA-101K(100UH) TAPG	
69857-603-007	ASSY MAIN A:SVX-319 PAL HI-FI V/IO	:SVX-319		LE04	62427-813-101	COIL-PEAKING:EL0607RA-101K(100UH) TAPG	
69857-603-735	ASSY MAIN A:VX-770 PAL HI-FI V/IO	:VX-770		QE01	62149-401-265	TRANSISTOR:2SD-1468-Q	
69857-603-737	ASSY MAIN A:VB-770 PAL HI-FI V/IO	:VB-770		QE02	62149-401-265	TRANSISTOR:2SD-1468-Q	
69857-603-736	ASSY MAIN A:VI-770 PAL HI-FI V/IO	:VI-770		QE03	62137-302-740	TRANSISTOR:KSC 945-Y TAPG	
OPTION 2 : ONLY USED FOR " VPS " SYSTEM.				QE04	62137-302-740	TRANSISTOR:KSC 945-Y TAPG	
OPTION 3 : ONLY USED FOR " MESECAM " SYSTEM.				QE05	62137-103-380	TRANSISTOR:KSA 733-Y TAPG	
OPTION 4 : ONLY USED FOR " OSD " SYSTEM.				QE07	62137-103-380	TRANSISTOR:KSA 733-Y TAPG	
MAIN A AUDIO ASSY 5:1/O NON PIP PARTS				QE08	62149-401-265	TRANSISTOR:2SD-1468-Q	
RES2	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J		QE09	62149-401-265	TRANSISTOR:2SD-1468-Q	
QE12	62137-701-012	TRANSISTOR:KSR 1003 TAPG		QE10	62137-302-740	TRANSISTOR:KSC 945-Y TAPG	
MAIN A AUDIO ASSY 7:1/O MAIN PARTS				QE11	62137-701-012	TRANSISTOR:KSR 1003 TAPG	
66503-700-130	HOLDER JACK ASSY:PAL HI-FI (G-8WH)			QE13	62137-701-022	TRANSISTOR:KSR 2003 TAPG	
63334-104-056	SCART JACK:HXC 1518-01-300			RE01	61048-177-183	R-METAL FILM:RM 1/8TS 10K-J	
66664-609-210	RIVET:BSR2A ANODIZING			RE02	61048-177-474	R-METAL FILM:RM 1/8TS 470K-J	
66462-603-420	CONNECTOR-BOARD B:HIPS 94HB			RE03	61048-177-183	R-METAL FILM:RM 1/8TS 10K-J	
63104-600-110	GROUND-CAP:PBSS T0.5 G-7C			RE04	61048-177-474	R-METAL FILM:RM 1/8TS 470K-J	
63334-700-437	JACK-BNC:HXC0322-01-310			RE05	61048-177-392	R-METAL FILM:RM 1/8TS 3.9K-J	
63054-212-350	WIRE GND:1007 #18 270 BLK YY			RE06	61048-177-112	R-METAL FILM:RM 1/8TS 1.1K-J	
63519-102-987	SWITCH SLIDE:KSA-2341			RE07	61048-177-392	R-METAL FILM:RM 1/8TS 3.9K-J	
63334-700-432	PIN JACK:JJP 3012-01-230			RE08	61048-177-112	R-METAL FILM:RM 1/8TS 1.1K-J	
CE01	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE09	61048-177-750	R-METAL FILM:RM 1/8TS 75-J	
CE02	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE10	61048-177-750	R-METAL FILM:RM 1/8TS 75-J	
CE03	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE11	61048-177-682	R-METAL FILM:RM 1/8TS 6.8K-J	
CE04	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE12	61048-177-562	R-METAL FILM:RM 1/8TS 5.6K-J	
CE05	61407-117-228	C-CERAMIC AXIAL:TAPG SL50V 0.022M-Z		RE13	61048-177-682	R-METAL FILM:RM 1/8TS 6.8K-J	
CE06	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		RE14	61048-177-562	R-METAL FILM:RM 1/8TS 5.6K-J	
CE07	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		RE15	61048-177-823	R-METAL FILM:RM 1/8TS 82K-J	
CE08	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		RE16	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
CE09	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		RE17	61048-177-823	R-METAL FILM:RM 1/8TS 82K-J	
CE10	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		RE18	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
CE11	61407-117-228	C-CERAMIC AXIAL:TAPG SL50V 0.022M-Z		RE19	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
CE12	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		RE20	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
CE13	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		RE21	61048-177-101	R-METAL FILM:RM 1/8TS 100-J	
CE14	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		RE22	61048-177-101	R-METAL FILM:RM 1/8TS 100-J	
CE15	61407-117-228	C-CERAMIC AXIAL:TAPG SL50V 0.022M-Z		RE23	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
CE16	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		RE24	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
CE17	61417-109-210	C-CERAMIC HK:CK45 F TAPG 50V 0.1M-Z		RE25	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
CE18	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		RE26	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
CE19	61417-109-210	C-CERAMIC HK:CK45 F TAPG 50V 0.1M-Z		RE27	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CE20	61607-402-220	C-ELECTROLYTIC:CE04W TAPG 50V 2.2M		RE28	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CE21	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE29	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CE22	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE30	61048-177-153	R-METAL FILM:RM 1/8TS 15K-J	
CE23	61607-402-220	C-ELECTROLYTIC:CE04W TAPG 50V 2.2M		RE31	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CE24	61607-401-471	C-ELECTROLYTIC:CE04W TAPG 16V 100M(SG)		RE32	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CE25	61607-402-220	C-ELECTROLYTIC:CE04W TAPG 50V 2.2M		RE33	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CE26	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE34	61048-177-333	R-METAL FILM:RM 1/8TS 33K-J	
CE29	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE35	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	
CE30	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE36	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	
CE31	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE37	61048-177-392	R-METAL FILM:RM 1/8TS 3.9K-J	
CE32	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		RE39	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
CE33	61407-117-184	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		RE40	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
CE34	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		RE41	61048-177-273	R-METAL FILM:RM 1/8TS 27K-J	
CE35	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		RE42	61048-177-183	R-METAL FILM:RM 1/8TS 18K-J	
CE36	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		RE43	61048-177-273	R-METAL FILM:RM 1/8TS 27K-J	
CE37	61407-117-228	C-CERAMIC AXIAL:TAPG SL50V 0.022M-Z		RE44	61048-177-183	R-METAL FILM:RM 1/8TS 18K-J	
CE38	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE45	61048-177-471	R-METAL FILM:RM 1/8TS 470-J	
CE39	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		RE46	61048-177-682	R-METAL FILM:RM 1/8TS 6.8K-J	
CE40	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE47	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
CE41	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE48	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
CE42	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE49	61048-177-752	R-METAL FILM:RM 1/8TS 7.5KJ	
CE43	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE51	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CE44	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE53	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
CE45	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE54	61048-177-101	R-METAL FILM:RM 1/8TS 100-J	
CE46	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE55	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
CE47	61417-109-050	C-CERAMIC HK:CK45 B TAPG 50V 0.022M-K		RE56	61048-177-101	R-METAL FILM:RM 1/8TS 100-J	
CE48	61607-402-220	C-ELECTROLYTIC:CE04W TAPG 50V 2.2M		RE57	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
CE49	61607-401-440	C-ELECTROLYTIC:CE04W TAPG 16V 22M		RE58	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CNE01	63349-062-360	CONNECTOR-WAFER:5267-07A		RE60	61049-327-680	R-METAL OXIDE:RS 2P 68-J	
CNE02	63349-062-340	CONNECTOR-WAFER:5267-05A		RE61	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
CNE03	63349-062-400	CONNECTOR-WAFER:5267-11A		RE62	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
CNE04	63349-062-320	CONNECTOR-WAFER:5267-03A		RE63	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
CNE06	63349-001-327	CONNECTOR WAFER:5233-10A		VRE01	61246-105-472	VR-SEMI:RH0615C 4.7KB	
CNE07	63349-001-320	CONNECTOR-WAFER:5233-03A		VRE02	61246-105-472	VR-SEMI:RH0615C 4.7KB	
CNE08	63349-001-321	CONNECTOR-WAFER:5233-04A					
DE01	62169-006-482	DIODE:1N4148 SAMSUNG					
DE02	62169-006-482	DIODE:1N4148 SAMSUNG					
DE03	62169-006-482	DIODE:1N4148 SAMSUNG					
DE04	62169-006-482	DIODE:1N4148 SAMSUNG					
DE06	62169-006-482	DIODE:1N4148 SAMSUNG					
ICE01	62119-103-684	IC:BA7730S					
ICE02	62119-103-681	IC:BU4053B					
ICE03	62119-103-693	IC:BA7021					
LE01	62427-813-101	COIL-PEAKING:EL0607RA-101K(100UH) TAPG					

LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
MAIN A VIDEO-PART (2H):PAL HI-FI SEC				C396	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
	63005-006-529	PWB-VIDEO(VX-770):94V0 1.6X163X330	S.N.A	C397	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
	64544-615-010	SHIELD-CASE BASE B:SPTE T0.25	S.N.A	C398	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M	
	64544-614-910	SHIELD-CASE BASE A:SPTE T0.25	S.N.A	C400	61607-401-440	C-ELECTROLYTIC:CE04W TAPG 16V 22M	
	64544-615-810	SHIELD-CASE BODY A:SPTE T0.25	S.N.A	C401	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M	
	64544-616-010	SHIELD-CASE BODY B:SPTE T0.25	S.N.A	C402	61609-402-102	C-ELECTROLYTIC:CE04W 6.3V 1000M(SG)	
	64544-615-910	SHIELD-CASE TOP A:SPTE T0.25	S.N.A	C403	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
	64544-616-110	SHIELD-CASE TOP B:SPTE T0.25	S.N.A	C404	61609-401-110	C-ELECTROLYTIC:CE04W 10V 220M	
	63054-212-340	WIRE-GND ASSY:1007 018 400 BLK AA		C405	61407-101-440	C-CERAMIC TEMP:CC45 SL TAPG 50V 220-J	
C302	61407-101-510	C-CERAMIC TEMP:CC45 SL TAPG 50V 470-J		C406	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C303	61407-105-120	C-CERAMIC TEMP:CC45 CH TAPG 50V 120-J		C407	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C304	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		C408	61407-105-270	C-CERAMIC TEMP:CC45 CH TAPG 50V 27-J	
C305	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C409	61407-101-360	C-CERAMIC TEMP:CC45 SL TAPG 50V 100-J	
C306	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C410	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C307	61609-401-110	C-ELECTROLYTIC:CE04W 10V 220M		C411	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C308	61507-121-371	C-POLYESTER:CQ921M TAPG 50V 0.001M-Z		C412	61407-105-270	C-CERAMIC TEMP:CC45 CH TAPG 50V 27-J	
C309	61607-134-033	C-ELECTROLYTIC:CE04W TAPG 50V 0.33M(SV)		C413	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C310	61407-101-480	C-CERAMIC TEMP:CC45 SL TAPG 50V 330-J		C414	61407-101-160	C-CERAMIC TEMP:CC45 SL TAPG 50V 15-J	
C312	61407-101-483	C-CERAMIC TEMP:CC45 SL TAPG 50V 47J		C415	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C314	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C416	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C315	61609-401-110	C-ELECTROLYTIC:CE04W 10V 220M		C417	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C316	61407-101-360	C-CERAMIC TEMP:CC45 SL TAPG 50V 100-J		C418	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C317	61607-402-230	C-ELECTROLYTIC:CE04W TAPG 50V 3.3M		C422	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C318	61607-401-440	C-ELECTROLYTIC:CE04W TAPG 16V 22M		C429	61417-109-040	C-CERAMIC HK:CK45 F TAPG 50V 0.001M-Z	
C319	61607-402-220	C-ELECTROLYTIC:CE04W TAPG 50V 2.2M		C430	61407-101-480	C-CERAMIC TEMP:CC45 SL TAPG 50V 330-J	
C320	61607-402-230	C-ELECTROLYTIC:CE04W TAPG 50V 3.3M		C431	61607-402-200	C-ELECTROLYTIC:CE04W TAPG 50V 1.47M	
C321	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		C432	61407-101-480	C-CERAMIC TEMP:CC45 SL TAPG 50V 330-J	
C322	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C433	61607-402-421	C-ELECTROLYTIC(SG):CE04W TAPG 25V 1.22M	
C323	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		C434	61607-134-014	C-ELECTROLYTIC:CE04W TAPG 50V 1.1M	
C324	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		C435	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C325	61407-105-250	C-CERAMIC TEMP:CC45 CH TAPG 50V 39-J		C436	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C326	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		C438	61407-101-440	C-CERAMIC TEMP:CC45 SL TAPG 50V 220-J	
C327	61607-402-200	C-ELECTROLYTIC:CE04W TAPG 50V 0.47M		C439	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C328	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		C440	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M	
C329	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		C460	61407-105-270	C-CERAMIC TEMP:CC45 CH TAPG 50V 27-J	
C330	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		C461	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C331	61609-401-110	C-ELECTROLYTIC:CE04W 10V 220M		C462	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C332	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		C463	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C333	61417-109-040	C-CERAMIC HK:CK45 F TAPG 50V 0.001M-Z		C464	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C333	61407-101-490	C-CERAMIC TEMP:CC45 SL TAPG 50V 390-J		C465	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C334	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C466	61417-109-040	C-CERAMIC HK:CK45 F TAPG 50V 0.001M-Z	
C335	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C468	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C336	61407-101-510	C-CERAMIC TEMP:CC45 SL TAPG 50V 470-J		C470	61417-109-040	C-CERAMIC HK:CK45 F TAPG 50V 0.001M-Z	
C337	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		C471	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C338	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		C472	61407-101-540	C-CERAMIC TEMP:CC45 SL TAPG 50V 560-J	
C339	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		C473	61407-101-540	C-CERAMIC TEMP:CC45 SL TAPG 50V 560-J	
C340	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C475	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
C341	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		C479	61407-105-250	C-CERAMIC TEMP:CC45 CH TAPG 50V 39-J	
C342	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		C483	61407-101-483	C-CERAMIC TEMP:CC45 SL TAPG 50V 47J	
C343	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C487	61407-101-483	C-CERAMIC TEMP:CC45 SL TAPG 50V 47J	
C344	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C488	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
C345	61407-105-850	C-CERAMIC TEMP:CC45 CH TAPG 50V 8-D		C498	61407-105-250	C-CERAMIC TEMP:CC45 CH TAPG 50V 39-J	
C346	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		C493	61409-105-280	C-CERAMIC TEMP:CC45 CH 50V 56-J	
C347	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		C494	61409-105-280	C-CERAMIC TEMP:CC45 CH 50V 56-J	
C348	61417-109-040	C-CERAMIC HK:CK45 F TAPG 50V 0.001M-Z		C495	61607-401-450	C-ELECTROLYTIC:CE04W TAPG 16V 33M	OPTION 3
C349	61407-105-860	C-CERAMIC TEMP:CC45 CH TAPG 50V 10-D		CN301	63349-601-329	CONNECTOR WAFER:5233-12A	
C350	61407-101-440	C-CERAMIC TEMP:CC45 SL TAPG 50V 220-J		CN302	63349-062-400	CONNECTOR WAFER:5267-11A	
C351	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		CN303	63349-062-390	CONNECTOR WAFER:5267-10A	
C352	61417-109-040	C-CERAMIC HK:CK45 F TAPG 50V 0.001M-Z		CN304	63349-601-321	CONNECTOR WAFER:5233-04A	
C353	61607-134-033	C-ELECTROLYTIC:CE04W TAPG 50V 0.33M(SV)		CN306	63349-601-321	CONNECTOR WAFER:5233-04A	
C354	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		CN308	63349-062-310	CONNECTOR WAFER:5267-02A	
C355	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		D302	62169-406-482	DIODE:1N4148 SAMSUNG	
C356	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		D304	62169-406-482	DIODE:1N4148 SAMSUNG	OPTION 3
C357	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		D305	62169-406-482	DIODE:1N4148 SAMSUNG	OPTION 3
C358	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		D306	62169-406-482	DIODE:1N4148 SAMSUNG	
C359	61407-105-320	C-CERAMIC TEMP:CC45 CH TAPG 50V 82-J		D313	62169-406-482	DIODE:1N4148 SAMSUNG	
C360	61407-105-270	C-CERAMIC TEMP:CC45 CH TAPG 50V 27-J		DI301	64569-006-011	DELAY LINE:MS-31PC-5K	
C361	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		FL301	64529-401-200	FILTER-LC:SF0 4141	
C362	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		FL302	64529-431-101	FILTER-LC:Q0138-C (3M LPF)	
C363	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	OPTION 3	FL303	64529-310-010	FILTER-CERAMIC:SFE 4.5MB	OPTION 3
C364	61607-401-660	C-ELECTROLYTIC:CE04W TAPG 25V 33M	OPTION 3	FL304	62429-410-112	COIL-TRAP(1/2F):7.8K TUNING-COIL	OPTION 3
C366	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	OPTION 3	FL307	64529-431-070	FILTER-LC:SANG SHIN BP630 C-T	
C367	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	OPTION 3	IC301	62109-103-401	IC(HYBRID):EHM-XB78Y07	
C368	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	OPTION 3	IC302	62109-103-402	IC(HYBRID):EHM-XB546Y08	
C369	61607-401-660	C-ELECTROLYTIC:CE04W TAPG 25V 33M	OPTION 3	IC303	62119-103-691	IC:LA7328	
C374	61507-121-510	C-POLYESTER:CQ921M TAPG 100V 0.022M-K		IC304	62119-103-692	IC:AN6308	
C375	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		IC305	62119-103-699	IC:MST001RS	
C376	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		IC306	62119-103-696	IC:MSM5967RS	
C378	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		IC307	62119-103-694	IC:BA7025L	OPTION 3
C380	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		IC311	62119-103-698	IC:TC9015P	
C382	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		IC314	62119-103-693	IC:BA7021	
C383	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		IC316	62119-103-702	IC:LA7210	
C384	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		IC317	62119-103-701	IC:AN78009R	
C385	61417-109-040	C-CERAMIC HK:CK45 F TAPG 50V 0.001M-Z		IC318	62119-601-183	IC:M7805C SST	
C386	61407-105-660	C-CERAMIC TEMP:CC45 CH TAPG 50V 5-D		J1	63054-222-120	WIRE-JUMPER(H-WRAP):1007 #26-S00	WHT 12
C387	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		L303	62427-812-101	COIL-PEAKING:EL0606RA-101J(100u)	TAPG
C388	61609-401-110	C-ELECTROLYTIC:CE04W 10V 220M		L304	62427-812-151	COIL-PEAKING:EL0606RA-151J(150u)	TAPG
C390	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		L306	62427-812-180	COIL-PEAKING:EL0606RA-180J(180u)	TAPG
C391	61417-109-200	C-CERAMIC HK:CK45 F TAPG 50V 0.047M-Z		L307	62427-812-101	COIL-PEAKING:EL0606RA-101J(100u)	TAPG
				L308	62427-812-151	COIL-PEAKING:EL0606RA-151J(150u)	TAPG

\* S.N.A : SERVICE NOT AVAILABLE

LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
L311	62427-812-151	COIL-PEAKING:EL0606RA-151J(150UH) TAPG		R326	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
L313	62427-812-150	COIL-PEAKING:EL0606RA-150J(15UH) TAPG		R327	61048-177-681	R-METAL FILM:RM 1/8TS 680-J	
L314	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R328	61048-177-182	R-METAL FILM:RM 1/8TS 1.8K-J	
L315	62427-812-150	COIL-PEAKING:EL0606RA-150J(15UH) TAPG		R329	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
L316	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R330	61048-177-821	R-METAL FILM:RM 1/8TS 820-J	
L317	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R331	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
L318	62427-812-330	COIL-PEAKING:EL0606RA-33UH TAPG		R333	61048-177-123	R-METAL FILM:RM 1/8TS 12K-J	
L319	62427-812-820	COIL-PEAKING:EL0606RA-82UH TAPG		R334	61048-177-271	R-METAL FILM:RM 1/8TS 270-J	
L321	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R335	61048-177-392	R-METAL FILM:RM 1/8TS 3.9K-J	
L322	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R336	61048-177-182	R-METAL FILM:RM 1/8TS 1.8K-J	
L323	62427-812-470	COIL-PEAKING:EL0606RA-470J(47UH) TAPG		R337	61048-177-471	R-METAL FILM:RM 1/8TS 470-J	
L324	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R338	61048-177-331	R-METAL FILM:RM 1/8TS 330-J	
L326	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R339	61048-177-392	R-METAL FILM:RM 1/8TS 3.9K-J	
L327	62427-812-180	COIL-PEAKING:EL0606RA-180J(18UH) TAPG		R340	61048-177-391	R-METAL FILM:RM 1/8TS 390-J	
L328	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R344	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
L329	62427-812-820	COIL-PEAKING:EL0606RA-82UH TAPG		R345	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
L333	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R347	61048-177-391	R-METAL FILM:RM 1/8TS 390-J	
L334	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG		R348	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
L339	62427-812-470	COIL-PEAKING:EL0606RA-470J(47UH) TAPG		R349	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	OPTION 31
Q301	62137-701-012	TRANSISTOR:KSR 1003 TAPG		R350	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	OPTION 31
Q302	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R351	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	OPTION 31
Q304	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R352	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	OPTION 31
Q306	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R353	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	OPTION 31
Q307	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R354	61048-177-154	R-METAL FILM:RM 1/8TS 150K-J	OPTION 31
Q308	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R355	61048-177-152	R-METAL FILM:RM 1/8TS 1.5K-J	OPTION 31
Q309	62137-701-012	TRANSISTOR:KSR 1003 TAPG		R357	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	OPTION 31
Q311	62137-701-022	TRANSISTOR:KSR 2003 TAPG		R358	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q312	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R359	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q313	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R360	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
Q314	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R361	61048-177-822	R-METAL FILM:RM 1/8TS 8.2K-J	
Q315	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R362	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
Q316	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R363	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
Q317	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R364	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
Q318	62137-701-012	TRANSISTOR:KSR 1003 TAPG	OPTION 31	R365	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
Q319	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R366	61048-177-391	R-METAL FILM:RM 1/8TS 390-J	
Q320	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R367	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q321	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R370	61048-177-182	R-METAL FILM:RM 1/8TS 1.8K-J	
Q322	62137-701-022	TRANSISTOR:KSR 2003 TAPG		R371	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q323	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R372	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q324	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R373	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q325	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R374	61048-177-681	R-METAL FILM:RM 1/8TS 680-J	
Q326	62137-701-022	TRANSISTOR:KSR 2003 TAPG	OPTION 31	R375	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
Q327	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R376	61048-177-681	R-METAL FILM:RM 1/8TS 680-J	
Q328	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R377	61048-177-470	R-METAL FILM:RM 1/8TS 47-J	
Q329	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R378	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	
Q333	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R379	61048-177-123	R-METAL FILM:RM 1/8TS 12K-J	
Q334	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R380	61048-177-151	R-METAL FILM:RM 1/8TS 150-J	
Q335	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R381	61048-177-821	R-METAL FILM:RM 1/8TS 820-J	
Q336	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R382	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q337	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R383	61048-177-122	R-METAL FILM:RM 1/8TS 1.2K-J	
Q338	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R384	61048-177-182	R-METAL FILM:RM 1/8TS 1.8K-J	
Q339	62147-001-835	TRANSISTOR:KSA 928A-Y TAPG E-C-B		R385	61048-177-562	R-METAL FILM:RM 1/8TS 5.6K-J	
Q340	62137-701-022	TRANSISTOR:KSR 2003 TAPG		R386	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
Q341	62147-001-835	TRANSISTOR:KSA 928A-Y TAPG E-C-B		R387	61048-177-822	R-METAL FILM:RM 1/8TS 8.2K-J	
Q342	62137-103-300	TRANSISTOR:KSA 733-Y TAPG		R388	61048-177-682	R-METAL FILM:RM 1/8TS 6.8K-J	
Q343	62137-701-012	TRANSISTOR:KSR 1003 TAPG		R389	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	
Q344	62137-701-012	TRANSISTOR:KSR 1003 TAPG		R390	61048-177-123	R-METAL FILM:RM 1/8TS 12K-J	
Q345	62137-701-012	TRANSISTOR:KSR 1003 TAPG		R391	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
Q346	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R392	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
Q347	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R393	61048-177-562	R-METAL FILM:RM 1/8TS 5.6K-J	
Q348	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R394	61048-177-562	R-METAL FILM:RM 1/8TS 5.6K-J	
Q349	62137-302-740	TRANSISTOR:KSC 945-Y TAPG		R395	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
Q356	62137-701-012	TRANSISTOR:KSR 1003 TAPG		R396	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
Q360	62137-701-022	TRANSISTOR:KSR 2003 TAPG		R397	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q361	62137-701-012	TRANSISTOR:KSR 1003 TAPG		R398	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
R301	61048-177-184	R-METAL FILM:RM 1/8TS 100K-J		R400	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
R302	61048-177-225	R-METAL FILM:RM 1/8TS 2.2M-J		R404	61048-177-393	R-METAL FILM:RM 1/8TS 39K-J	
R303	61048-177-471	R-METAL FILM:RM 1/8TS 470-J		R405	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
R304	61048-177-471	R-METAL FILM:RM 1/8TS 470-J		R406	61048-177-471	R-METAL FILM:RM 1/8TS 470-J	
R305	61048-177-392	R-METAL FILM:RM 1/8TS 3.9K-J		R407	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
R306	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J		R408	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
R307	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J		R409	61048-177-560	R-METAL FILM:RM 1/8TS 56-J	
R308	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J		R410	61048-177-750	R-METAL FILM:RM 1/8TS 75-J	
R310	61048-177-271	R-METAL FILM:RM 1/8TS 270-J		R411	61048-177-471	R-METAL FILM:RM 1/8TS 470-J	
R311	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J		R412	61048-177-471	R-METAL FILM:RM 1/8TS 470-J	
R312	61048-177-182	R-METAL FILM:RM 1/8TS 1.8K-J		R413	61048-177-471	R-METAL FILM:RM 1/8TS 470-J	
R313	61048-177-273	R-METAL FILM:RM 1/8TS 27K-J		R414	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
R314	61048-177-183	R-METAL FILM:RM 1/8TS 10K-J		R415	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
R315	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J		R416	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
R316	61048-177-684	R-METAL FILM:RM 1/8TS 680K-J		R419	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
R317	61048-177-684	R-METAL FILM:RM 1/8TS 680K-J		R420	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
R318	61048-177-183	R-METAL FILM:RM 1/8TS 10K-J		R421	61048-177-105	R-METAL FILM:RM 1/8TS 1M-J	
R319	61048-177-302	R-METAL FILM:RM 1/8TS 3K-J		R422	61048-177-105	R-METAL FILM:RM 1/8TS 1M-J	
R320	61048-177-562	R-METAL FILM:RM 1/8TS 5.6K-J		R423	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
R321	61048-177-122	R-METAL FILM:RM 1/8TS 1.2K-J		R424	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
R322	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J		R425	61048-177-153	R-METAL FILM:RM 1/8TS 15K-J	
R323	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J		R426	61048-177-153	R-METAL FILM:RM 1/8TS 15K-J	
R324	61048-177-153	R-METAL FILM:RM 1/8TS 15K-J		R427	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
R325	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J		R428	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
R325	61048-177-681	R-METAL FILM:RM 1/8TS 680-J		R429	61048-177-822	R-METAL FILM:RM 1/8TS 8.2K-J	



LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
R430	61048-177-682	R-METAL FILM:RM 1/8TS 6.8K-J			69812-603-010	ASSY PRE AMP:2HEAD 80W PAL HI-FI	
R431	61048-177-152	R-METAL FILM:RM 1/8TS 1.5K-J					
R432	61048-177-152	R-METAL FILM:RM 1/8TS 1.5K-J			63005-006-635	PWB-PRE AMP(VX-770):94V0 1.6X139X189.5	S.N.A
R433	61048-177-471	R-METAL FILM:RM 1/8TS 470-J			64543-605-910	SHIELD CASE 84:SPT0 0.3T	S.N.A
R434	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J			64543-605-810	SHIELD CASE 83:SPT0 0.3T	S.N.A
R435	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J		C1	61407-105-320	C-CERAMIC.TEMP:CC45 CH TAPG 50V 82-J	
R436	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J		C10	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M	
R450	61048-177-153	R-METAL FILM:RM 1/8TS 15K-J		C11	61407-105-300	C-CERAMIC.TEMP:CC45 CH TAPG 50V 68-J	
R451	61048-177-122	R-METAL FILM:RM 1/8TS 1.2K-J		C12	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
R452	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J		C13	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
R453	61048-177-334	R-METAL FILM:RM 1/8TS 330K-J		C15	61417-109-040	C-CERAMIC.HK:CK45 F TAPG 50V 0.001M-Z	
R454	61048-177-471	R-METAL FILM:RM 1/8TS 470-J		C16	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
R455	61048-177-183	R-METAL FILM:RM 1/8TS 18K-J		C17	61607-402-240	C-ELECTROLYTIC:CE04W TAPG 16V 4.7M-N	
R456	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J		C18	61417-110-478	C-CERAMIC:CG45XTAPG 25V 0.047-N	
R457	61048-177-101	R-METAL FILM:RM 1/8TS 100-J		C19	61407-105-180	C-CERAMIC.TEMP:CC45 CH TAPG 50V 22-J	
R458	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J		C2	61407-101-483	C-CERAMIC.TEMP:CC45 SL TAPG 50V 47J	
R460	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J		C20	61407-105-330	C-CERAMIC.TEMP:CC45 CH TAPG 50V 33-J	
R461	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J		C21	61607-402-240	C-ELECTROLYTIC:CE04W TAPG 16V 4.7M-N	
R476	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J		C22	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
R477	61048-177-821	R-METAL FILM:RM 1/8TS 820-J		C23	61417-110-478	C-CERAMIC:CG45XTAPG 25V 0.047-N	
R478	61048-177-331	R-METAL FILM:RM 1/8TS 330-J		C24	61407-105-160	C-CERAMIC.TEMP:CC45 CH TAPG 50V 18-J	
R479	61048-177-331	R-METAL FILM:RM 1/8TS 330-J		C3	61407-105-250	C-CERAMIC.TEMP:CC45 CH TAPG 50V 39-J	
R480	61048-177-101	R-METAL FILM:RM 1/8TS 100-J		C4	61407-101-420	C-CERAMIC.TEMP:CC45 SL TAPG 50V 180-J	
R480	61048-177-221	R-METAL FILM:RM 1/8TS 220-J		C5	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
R481	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J		C6	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
R486	61048-177-682	R-METAL FILM:RM 1/8TS 6.8K-J		C7	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
R490	61048-177-331	R-METAL FILM:RM 1/8TS 330-J		C8	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M	
R491	61048-177-391	R-METAL FILM:RM 1/8TS 390-J		C9	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N	
R492	61048-177-153	R-METAL FILM:RM 1/8TS 15K-J		CN1	63349-601-080	CONNECTOR-WAFER:5234-08A	
R493	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J		CN2	63349-601-050	CONNECTOR WAFER:5234-06A	
R494	61048-177-510	R-METAL FILM:RM 1/8TS 51-J		CN3	63349-067-018	CONNECTOR-HOUSING:5513-0APB	
SD301	62169-102-057	SHOTKY DIODE:ISS100-TA		CN4	63349-067-040	CONNECTOR-HOUSING:5513-04 APB	
TP303	63124-103-330	PIN-TEST POINT:BSW 1/4H P11.0 SN		IC1	62119-102-534	IC:AN3331 K	
TP307	63124-103-330	PIN-TEST POINT:BSW 1/4H P11.0 SN		L1	62427-812-181	COIL-PEAKING:EL0606RA 181-J(180UH) TAPG	
VC301	61829-301-120	TRIMMER CONDENSOR:ECR-HA060G41		L2	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG	
VR302	61246-105-102	VR-SEMI:RH0615C 1K0		L3	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG	
VR303	61246-105-102	VR-SEMI:RH0615C 1K0		L4	62427-812-270	COIL-PEAKING:EL0606RA-270J(27UH) TAPG	
VR305	61246-105-102	VR-SEMI:RH0615C 1K0		L5	62427-812-270	COIL-PEAKING:EL0606RA-270J(27UH) TAPG	
VR306	61246-105-102	VR-SEMI:RH0615C 1K0		L6	62427-812-101	COIL-PEAKING:EL0606RA-101J(100UH) TAPG	
VR309	61246-105-102	VR-SEMI:RH0615C 1K0		Q1	62137-302-740	TRANSISTOR:KSC 945-Y TAPG	
XT301	64539-012-091	CRYSTAL:KSS-6K(4.433619M)		Q2	62137-701-012	TRANSISTOR:KSR 1003 TAPG	
XT302	64539-012-093	CRYSTAL:4.406251M		R1	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
XT303	64539-012-094	CRYSTAL:17.734476M		R10	61048-177-271	R-METAL FILM:RM 1/8TS 270-J	
XT304	64539-102-319	CERAMIC RESONATOR:CS0500E5		R11	61048-177-821	R-METAL FILM:RM 1/8TS 820-J	
				R12	61048-177-479	R-METAL FILM:RM 1/8TS 4.7-J	
MAIN A	VIDEO OSD-PART:PAL HI-FI(SUA)(OSD USE)	OPTION 4		R13	61048-177-391	R-METAL FILM:RM 1/8TS 390-J	
				R2	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
C419	63053-616-816	LEAD CONN ASSY:1429 #26 A RED AA CNE09		R3	61048-177-181	R-METAL FILM:RM 1/8TS 180-J	
C420	61407-105-270	C-CERAMIC.TEMP:CC45 CH TAPG 50V 27-J		R4	61048-177-391	R-METAL FILM:RM 1/8TS 390-J	
C420	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		R5	61048-177-301	R-METAL FILM:RM 1/8TS 300-J	
C421	61607-131-472	C-ELECTROLYTIC:CE04W TAPG 50V 4.7M		R6	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
C423	61607-402-230	C-ELECTROLYTIC:CE04W TAPG 50V 3.3M		R7	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
C424	61417-109-040	C-CERAMIC.HK:CK45 F TAPG 50V 0.001M-Z		R8	61048-177-122	R-METAL FILM:RM 1/8TS 1.2K-J	
C437	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N		R9	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
C478	61407-105-860	C-CERAMIC.TEMP:CC45 CH TAPG 50V 10-D		TP	63124-103-330	PIN-TEST POINT:BSW 1/4H P11.0 SN	S.N.A
C484	61407-101-480	C-CERAMIC.TEMP:CC45 SL TAPG 50V 330-J		VR1	61246-106-222	VR-SEMI:RH0614C 2.2K0	
CN309	63349-062-330	CONNECTOR-WAFER:5267-04A		VR2	61246-106-222	VR-SEMI:RH0614C 2.2K0	
IC310	62119-103-692	IC:AN6308					
IC312	62109-104-998	IC:UPD6142C-001					
IC313	62119-103-648	IC:LA 7213					
L331	62427-812-470	COIL-PEAKING:EL0606RA-470J(47UH) TAPG					
R341	61048-177-224	R-METAL FILM:RM 1/8TS 220K-J					
R342	61048-177-681	R-METAL FILM:RM 1/8TS 680-J					
R360	61048-177-911	R-METAL FILM:RM 1/8TS 910-J					
R369	61048-178-332	R-METAL FILM:RM 1/8TS 3.3K-G					
R437	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R438	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J					
R439	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J					
R440	61048-178-102	R-METAL FILM:RM 1/8TS 1K-G					
R483	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
VC302	61829-301-120	TRIMMER CONDENSOR:ECR-HA060G41					
MAIN A	VPS-PART:PAL HI-FI(SUA)(VPS USE:SVX-319) OPTION 2						
C425	61607-134-014	C-ELECTROLYTIC:CE04W TAPG 50V 0.1M					
C426	61607-134-014	C-ELECTROLYTIC:CE04W TAPG 50V 0.1M					
C427	61407-117-104	C-CERAMIC AXIAL:TAPG Y 16V 0.01-N					
C428	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M					
D303	62169-406-482	DIODE:1N4148 SAMSUNG					
IC315	62119-103-700	IC:SDA5642					
Q350	62137-302-740	TRANSISTOR:KSC 945-Y TAPG					
R441	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R442	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R443	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R444	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J					
R445	61048-177-824	R-METAL FILM:R 1/8TS 820K-J					
R446	61048-177-105	R-METAL FILM:RM 1/8TS 1M-J					
R447	61048-177-101	R-METAL FILM:RM 1/8TS 100-J					
R448	61048-177-824	R-METAL FILM:R 1/8TS 820K-J					
R449	61048-177-562	R-METAL FILM:RM 1/8TS 5.6K-J					

\* S.N.A : SERVICE NOT AVAILABLE

LOCA. NO	PART-NUMBER	DESCRIPTION: SPECIFICATION	REMARK	LOCA. NO	PART-NUMBER	DESCRIPTION: SPECIFICATION	REMARK
ASSY TUNER PARTS LIST				69800-603-004 TUNER PART: PAL (G-8 HI-FI) (VI-770) OPTION 7			
	69800-603-002	TUNER-PART: PAL HI-FI (SVX-319, VX/VB-770)			63005-006-787	PWB-TUNER: 1V0 147X245.5X1.6(T)	S.N.A
	69800-603-004	TUNER-PART: PAL HI-FI (VI-770)			63054-401-670	CABLE-COAXIAL ASSY: UL B65 AWG 100 AA	
	OPTION 6 : ONLY USED FOR SVX-319/VX-770/VB-770 MODEL.				63054-211-140	WIRE-GND: 107 #18 BLK 140M/M(Y)	
	OPTION 7 : ONLY USED FOR VI-770 MODEL.				66024-600-610	TIE BAND: NYLON 616-100	
	69800-603-002	TUNER-PART: PAL HI-FI (SVX-319, VX/VB-770) OPTION 6			67154-101-440	SCREW-TAP. PWH: 2-3X10 FE FZY	
					64519-903-132	TUNER-IF UNIT: FE FK-0206 UK	
					62569-002-222	RF CONVERTER: MDLK3B393A	
					63104-600-110	GROUND-CAP: PBSS T0.5 G-7C	
					66463-602-620	CONNECTOR-BOARD A: HIPS 94HB	
					61419-109-220	C-CERAMIC HK: CK45 F 50V 0.022M-Z	
					61607-401-430	C-ELECTROLYTIC: CE04W TAPG 25V 10M	
					61419-109-220	C-CERAMIC HK: CK45 F 50V 0.022M-Z	
					61607-401-430	C-ELECTROLYTIC: CE04W TAPG 25V 10M	
					61607-401-460	C-ELECTROLYTIC(SG): CE04W TAPG 16V 47M	
					61607-401-430	C-ELECTROLYTIC: CE04W TAPG 25V 10M	
					61607-401-430	C-ELECTROLYTIC: CE04W TAPG 25V 10M	
					61607-401-430	C-ELECTROLYTIC: CE04W TAPG 25V 10M	
					61419-109-220	C-CERAMIC HK: CK45 F 50V 0.022M-Z	
					61607-401-430	C-ELECTROLYTIC: CE04W TAPG 25V 10M	
					61607-431-472	C-ELECTROLYTIC: CE04W TAPG 50V 4.7M	
					61419-109-220	C-CERAMIC HK: CK45 F 50V 0.022M-Z	
					61419-109-220	C-CERAMIC HK: CK45 F 50V 0.022M-Z	
					61607-401-430	C-ELECTROLYTIC: CE04W TAPG 25V 10M	
					61419-109-220	C-CERAMIC HK: CK45 F 50V 0.022M-Z	
					63349-601-323	CONNECTOR-WAFER: S233-05A	
					63349-601-322	CONNECTOR-WAFER: S233-05A	
					63349-062-320	CONNECTOR-WAFER: S267-03A	
					63349-062-340	CONNECTOR-WAFER: S267-05A	
					62109-201-281	IC: MC7809 (SST)	
					62119-501-560	IC-L: KA33V	
					62427-812-100	COIL-PEAKING: EL0606RA-100J(100H) TAPG	
					62427-812-100	COIL-PEAKING: EL0606RA-100J(100H) TAPG	
					62427-812-100	COIL-PEAKING: EL0606RA-100J(100H) TAPG	
					62427-812-100	COIL-PEAKING: EL0606RA-100J(100H) TAPG	
					62427-812-100	COIL-PEAKING: EL0606RA-100J(100H) TAPG	
					62427-812-100	COIL-PEAKING: EL0606RA-100J(100H) TAPG	
					62137-302-740	TRANSISTOR: KSC 945-Y TAPG	
					62137-103-300	TRANSISTOR: KSA 733-Y TAPG	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-392	R-METAL FILM: RM 1/8TS 3.9K-J	
					61048-177-102	R-METAL FILM: RM 1/8TS 1K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-223	R-METAL FILM: RM 1/8TS 22K-J	
					61048-177-911	R-METAL FILM: RM 1/8TS 910-J	
					61048-177-683	R-METAL FILM: RM 1/8TS 68K-J	
					61048-177-152	R-METAL FILM: RM 1/8TS 1.5K-J	
					61048-177-273	R-METAL FILM: RM 1/8TS 27K-J	
					61048-177-102	R-METAL FILM: RM 1/8TS 1K-J	
					61048-177-683	R-METAL FILM: RM 1/8TS 68K-J	
					61048-177-152	R-METAL FILM: RM 1/8TS 1.5K-J	
					61048-177-273	R-METAL FILM: RM 1/8TS 27K-J	
					61048-177-102	R-METAL FILM: RM 1/8TS 1K-J	
					61048-177-561	R-METAL FILM: RM 1/4T 560-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-562	R-METAL FILM: RM 1/8TS 5.6K-J	
					61048-177-683	R-METAL FILM: RM 1/8TS 68K-J	
					61048-177-152	R-METAL FILM: RM 1/8TS 1.5K-J	
					61048-177-273	R-METAL FILM: RM 1/8TS 27K-J	
					61048-177-102	R-METAL FILM: RM 1/8TS 1K-J	
					61048-177-561	R-METAL FILM: RM 1/4T 560-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-472	R-METAL FILM: RM 1/8TS 4.7K-J	
					61048-177-153	R-METAL FILM: RM 1/8TS 15K-J	
					61048-177-563	R-METAL FILM: RM 1/8TS 56K-J	
					61048-177-563	R-METAL FILM: RM 1/8TS 56K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-103	R-METAL FILM: RM 1/8TS 10K-J	
					61048-177-562	R-METAL FILM: RM 1/8TS 5.6K-J	
					61246-105-223	VR-SEMI: RH0615C 22KB	
					61246-105-103	VR-SEMI: RH0615C 10KB	
					61246-105-222	VR-SEMI: RH0615C 2.2KB	
					61246-105-222	VR-SEMI: RH0615C 2.2KB	

LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA.NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
<b>ASSY MAIN-B PARTS LIST</b> (SERVO.SYSCON.LINEAR AUDIO.OSD)				Q622	62137-701-012	TRANSISTOR:KSR 1003 TAPC	
				Q623	62137-701-012	TRANSISTOR:KSR 1003 TAPC	
				Q626	62137-701-022	TRANSISTOR:KSR 2003 TAPC	
				Q629	62137-701-012	TRANSISTOR:KSR 1003 TAPC	
				Q632	62137-701-010	TRANSISTOR:KSR 1001 TAPC	
				Q633	62137-701-022	TRANSISTOR:KSR 2003 TAPC	
				Q634	62137-701-012	TRANSISTOR:KSR 1003 TAPC	
				Q635	62137-701-022	TRANSISTOR:KSR 2003 TAPC	
				Q636	62137-103-380	TRANSISTOR:KSA 733-Y TAPC	
				Q637	62137-701-022	TRANSISTOR:KSR 2003 TAPC	
				Q640	62137-701-023	TRANSISTOR:KSR 2004 TAPC	
<b>OPTION 4 : ONLY USED FOR " OSD " SYSTEM.</b>				R601	61048-177-221	R-METAL FILM:RM 1/8TS 220-J	
				R607	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
				R608	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
				R609	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
				R611	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
				R612	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
				R613	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
				R614	61048-177-583	R-METAL FILM:RM 1/8TS 68K-J	
				R615	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
				R616	61048-177-152	R-METAL FILM:RM 1/8TS 1.5K-J	
				R617	61048-177-224	R-METAL FILM:RM 1/8TS 220K-J	
				R618	61048-177-181	R-METAL FILM:RM 1/8TS 180-J	
				R620	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
				R621	61048-177-821	R-METAL FILM:RM 1/8TS 820-J	
				R622	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
				R623	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
				R624	61048-177-105	R-METAL FILM:RM 1/8TS 1M-J	
				R625	61048-177-563	R-METAL FILM:RM 1/8TS 56K-J	
				R626	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
				R627	61048-177-563	R-METAL FILM:RM 1/8TS 56K-J	
				R628	61048-177-563	R-METAL FILM:RM 1/8TS 56K-J	
				R629	61048-177-333	R-METAL FILM:RM 1/8TS 33K-J	
				R630	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
				R631	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	
				R632	61048-177-474	R-METAL FILM:RM 1/8TS 470K-J	
				R633	61048-177-154	R-METAL FILM:RM 1/8TS 150K-J	
				R634	61048-177-272	R-METAL FILM:RM 1/8TS 2.7K-J	
				R635	61048-177-563	R-METAL FILM:RM 1/8TS 56K-J	
				R636	61048-177-823	R-METAL FILM:RM 1/8TS 82K-J	
				R637	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
				R638	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
				R639	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
				R640	61048-177-154	R-METAL FILM:RM 1/8TS 150K-J	
				R641	61048-177-224	R-METAL FILM:RM 1/8TS 220K-J	
				R642	61048-177-822	R-METAL FILM:RM 1/8TS 8.2K-J	
				R643	61048-177-333	R-METAL FILM:RM 1/8TS 33K-J	
				R644	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
				R654	61048-177-333	R-METAL FILM:RM 1/8TS 33K-J	
				R655	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
				R656	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
				R6701	61048-177-563	R-METAL FILM:RM 1/8TS 56K-J	
				R6702	61048-177-184	R-METAL FILM:RM 1/8TS 180K-J	
				R6703	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
				R6705	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
				R6706	61048-177-683	R-METAL FILM:RM 1/8TS 68K-J	
				R6707	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
				R6708	61048-177-183	R-METAL FILM:RM 1/8TS 18K-J	
				R6709	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
				R6710	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	
				R6711	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
				R676	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
				R677	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J	
				R678	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
				R680	61048-177-104	R-METAL FILM:RM 1/8TS 100K-J	
				R689	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
				R690	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
				R691	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
				R692	61048-177-683	R-METAL FILM:RM 1/8TS 68K-J	
				R693	61048-177-683	R-METAL FILM:RM 1/8TS 68K-J	
				R694	61048-177-683	R-METAL FILM:RM 1/8TS 68K-J	
				R695	61048-177-154	R-METAL FILM:RM 1/8TS 150K-J	
				R696	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J	
				R697	61048-177-154	R-METAL FILM:RM 1/8TS 150K-J	
				R698	61048-177-823	R-METAL FILM:RM 1/8TS 82K-J	
				R699	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
				VR601	61246-105-224	VR-SEMI:RH061SC 220KB	
				VR603	61246-105-224	VR-SEMI:RH061SC 220KB	
				VR606	61246-106-105	VR-SEMI:RH0614C-100KB	
				VR610	61246-105-104	VR-SEMI:RH061SC 100KB	
				<b>MAIN B</b> <b>LINER PART:PAL(G-8WH HI-FI)</b>			
				<b>MAIN B</b> <b>AUDIO ASSY 2:NON DUBBING BIAS ISC</b>			
				C814	61509-339-010	C-POLYESTER:MDX 100V 473K	
				C825	61507-121-471	C-POLYESTER:CQ921M TAPG 50V 0.01M-J	
				C826	61507-121-481	C-POLYESTER:CQ921M TAPG 50V 0.05M-J	

LOCA. NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK	LOCA. NO	PART-NUMBER	DESCRIPTION:SPECIFICATION	REMARK
C827	61607-401-440	C-ELECTROLYTIC:CE04W TAPG 16V 22M		R509	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
OSC1	62429-014-099	COIL-BIAS OSC:1280WT SHIELD CAP		R516	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
Q803	62149-301-431	TRANSISTOR:KSC1000-Y SAMSUNG		R517	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
R820	61048-177-470	R-METAL FILM:RM 1/8TS 47K-J		R518	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
R821	61048-177-333	R-METAL FILM:RM 1/8TS 33K-J		R519	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
R822	61048-227-150	R-METAL FILM:RM 1/4P 15-J		R520	61048-177-222	R-METAL FILM:RM 1/8TS 2.2K-J	
MAIN B	AUDIO ASSY 4:L/M PARTS			R522	61048-177-101	R-METAL FILM:RM 1/8TS 100-J	
C801	61507-121-340	C-POLYESTER:CQ921M TAPG 100V 0.001M-K		R523	61048-177-101	R-METAL FILM:RM 1/8TS 100-J	
C802	61407-117-228	C-CERAMIC AXIAL:TAPG SL50V 0.022M-Z		R525	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
C803	61507-121-411	C-POLYESTER:CQ921M TAPG 100V 0.0033M-J		R526	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
C804	61507-121-260	C-POLYESTER:CQ921M TAPG 50V 0.1M-J		R527	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
C805	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		R528	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
C806	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		R529	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
C807	61507-121-471	C-POLYESTER:CQ921M TAPG 50V 0.01M-J		R531	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
C808	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		R532	61048-177-473	R-METAL FILM:RM 1/8TS 47K-J	
C809	61607-401-450	C-ELECTROLYTIC:CE04W TAPG 16V 33M		R534	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
C811	61507-121-450	C-POLYESTER:CQ921M TAPG 50V 0.0068M-K		R539	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
C812	61507-121-431	C-POLYESTER:CQ921M TAPG 50V 0.0047M-J		R540	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
C813	61507-121-610	C-POLYESTER:CQ921M TAPG 100V 0.012M-J		R542	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
C815	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		R543	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
C816	61507-121-520	C-POLYESTER:CQ921M TAPG 50V 0.027M-K		R544	61048-177-102	R-METAL FILM:RM 1/8TS 1K-J	
C817	61507-121-511	C-POLYESTER:CQ921M TAPG 100V 0.022M-J		R545	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J	
C818	61607-402-210	C-ELECTROLYTIC:CE04W TAPG 50V 1M		R553	61048-177-101	R-METAL FILM:RM 1/8TS 100-J	
C819	61607-401-460	C-ELECTROLYTIC(SG):CE04W TAPG 16V 47M		RN501	61609-611-130	R-NETWORKS:RGLD3X473J	
C820	61607-401-430	C-ELECTROLYTIC:CE04W TAPG 25V 10M		RN502	61609-611-120	R-NETWORKS:RGLD3X472J	
C821	61607-401-471	C-ELECTROLYTIC:CE04W TAPG 16V 100M(SG)		RN504	61609-611-100	R-NETWORKS:RGLD7X472J	
C822	61407-117-228	C-CERAMIC AXIAL:TAPG SL50V 0.022M-Z		RN505	61609-611-110	R-NETWORKS:RGLD 4X102J	
C823	61407-101-440	C-CERAMIC TEMP:CC45 SL TAPG 50V 220-J		X501	64539-102-012	CERAMIC RESONATOR:FCR 4.0MC	
CN801	63349-062-310	CONNECTOR-WAFER:S267-02A		MAIN B	SYS/SER OSD PART:PAL(G-BWH HI-FI)		
CN802	63349-062-320	CONNECTOR-WAFER:S267-03A		CN507	63349-062-330	CONNECTOR-WAFER:S267-04A	
CN803	63349-062-310	CONNECTOR-WAFER:S267-02A		CN508	63349-062-311	CONNECTOR WAFER:S267-02A(8LK)	
CN804	63349-062-340	CONNECTOR-WAFER:S267-05A		CN509	63349-062-320	CONNECTOR-WAFER:S267-03A	
IC801	62119-103-685	IC:LA7295		D504	62169-406-482	DIODE:1N4148 SAMSUNG	
L801	62427-014-101	COIL-PEAKING AXIAL:BAL03 TAPG 101K		D505	62169-406-482	DIODE:1N4148 SAMSUNG	
L802	62429-010-280	COIL-PEAKING:BOAM-22MH		D507	62169-406-482	DIODE:1N4148 SAMSUNG	
L803	62427-013-822	COIL-PEAKING:EL0607RA-822J(8200UH) TAPG		D512	62169-406-482	DIODE:1N4148 SAMSUNG	
L804	62427-014-101	COIL-PEAKING AXIAL:BAL03 TAPG 101K		D513	62169-406-482	DIODE:1N4148 SAMSUNG	
R801	61048-177-223	R-METAL FILM:RM 1/8TS 22K-J		Q507	62137-701-012	TRANSISTOR:KSR 1003 TAPG	
R802	61048-177-681	R-METAL FILM:RM 1/8TS 680-J		Q508	62137-701-012	TRANSISTOR:KSR 1003 TAPG	
R803	61048-177-331	R-METAL FILM:RM 1/8TS 330-J		R546	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
R804	61048-177-334	R-METAL FILM:RM 1/8TS 330K-J		R547	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
R805	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J		R548	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J	
R806	61048-177-332	R-METAL FILM:RM 1/8TS 3.3K-J		R554	61048-177-123	R-METAL FILM:RM 1/8TS 12K-J	
R807	61048-177-563	R-METAL FILM:RM 1/8TS 56K-J					
R808	61048-177-105	R-METAL FILM:RM 1/8TS 1M-J					
R809	61048-177-183	R-METAL FILM:RM 1/8TS 18K-J					
R810	61048-177-822	R-METAL FILM:RM 1/8TS 8.2K-J					
R811	61048-177-122	R-METAL FILM:RM 1/8TS 1.2K-J					
R812	61048-177-152	R-METAL FILM:RM 1/8TS 1.5K-J					
R813	61048-177-271	R-METAL FILM:RM 1/8TS 270-J					
R814	61048-177-153	R-METAL FILM:RM 1/8TS 15K-J					
R815	61048-177-392	R-METAL FILM:RM 1/8TS 3.9K-J					
R816	61048-177-331	R-METAL FILM:RM 1/8TS 330-J					
R817	61048-177-183	R-METAL FILM:RM 1/8TS 18K-J					
R818	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R819	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
VR801	61246-05-103	VR-SEMI:RH0615C 10KB					
VR802	61246-05-224	VR-SEMI:RH0615C 220KB					
MAIN B	SYSCON PART(D):PAL(G-BWH HI-FI)						
	63054-211-130	WIRE-GND:1007 #18 170 BLK YO					
	63005-006-594	PWB-SYS/SER:94V0 1.6X317X145(VX-770)	S.N.A				
	63124-003-330	PIN-TEST POINT:BSW 1/4H P11.0 SN	S.N.A				
C501	61417-09-200	C-CERAMIC:HK:CK45 F TAPG 50V 0.047M-Z					
C502	61609-021-102	C-ELECTROLYTIC:CE04W 6.3V 1000M					
C505	61417-09-040	C-CERAMIC:HK:CK45 F TAPG 50V 0.001M-Z					
C506	61417-09-040	C-CERAMIC:HK:CK45 F TAPG 50V 0.001M-Z					
C507	61417-09-040	C-CERAMIC:HK:CK45 F TAPG 50V 0.001M-Z					
C510	61417-09-040	C-CERAMIC:HK:CK45 F TAPG 50V 0.001M-Z					
C514	61417-09-210	C-CERAMIC:HK:CK45 F TAPG 50V 0.1M-Z					
CN501	63349-062-360	CONNECTOR-WAFER:S267-07A					
CN502	63349-062-420	CONNECTOR-WAFER:S267-13A					
CN503	63349-062-390	CONNECTOR-WAFER:S267-10A					
D502	62169-406-482	DIODE:1N4148 SAMSUNG					
D506	62169-001-057	SCHOTTKY DIODE:HRP 22					
D514	62169-002-057	SHOTTKY DIODE:ISS100-TA					
IC501	62119-01-331	IC:TMP 47C660N SYS SUA					
Q501	62137-01-022	TRANSISTOR:KSR 2003 TAPG					
Q506	62137-01-012	TRANSISTOR:KSR 1003 TAPG					
R501	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R502	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J					
R503	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J					
R504	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J					
R505	61048-177-472	R-METAL FILM:RM 1/8TS 4.7K-J					
R506	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R507	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					
R508	61048-177-103	R-METAL FILM:RM 1/8TS 10K-J					

\* S.N.A : SERVICE NOT AVAILABLE

## **7. MECHANICAL EXPLODED VIEWS**

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**7-1. Instrument Assembly -- ----- 7 - 2**

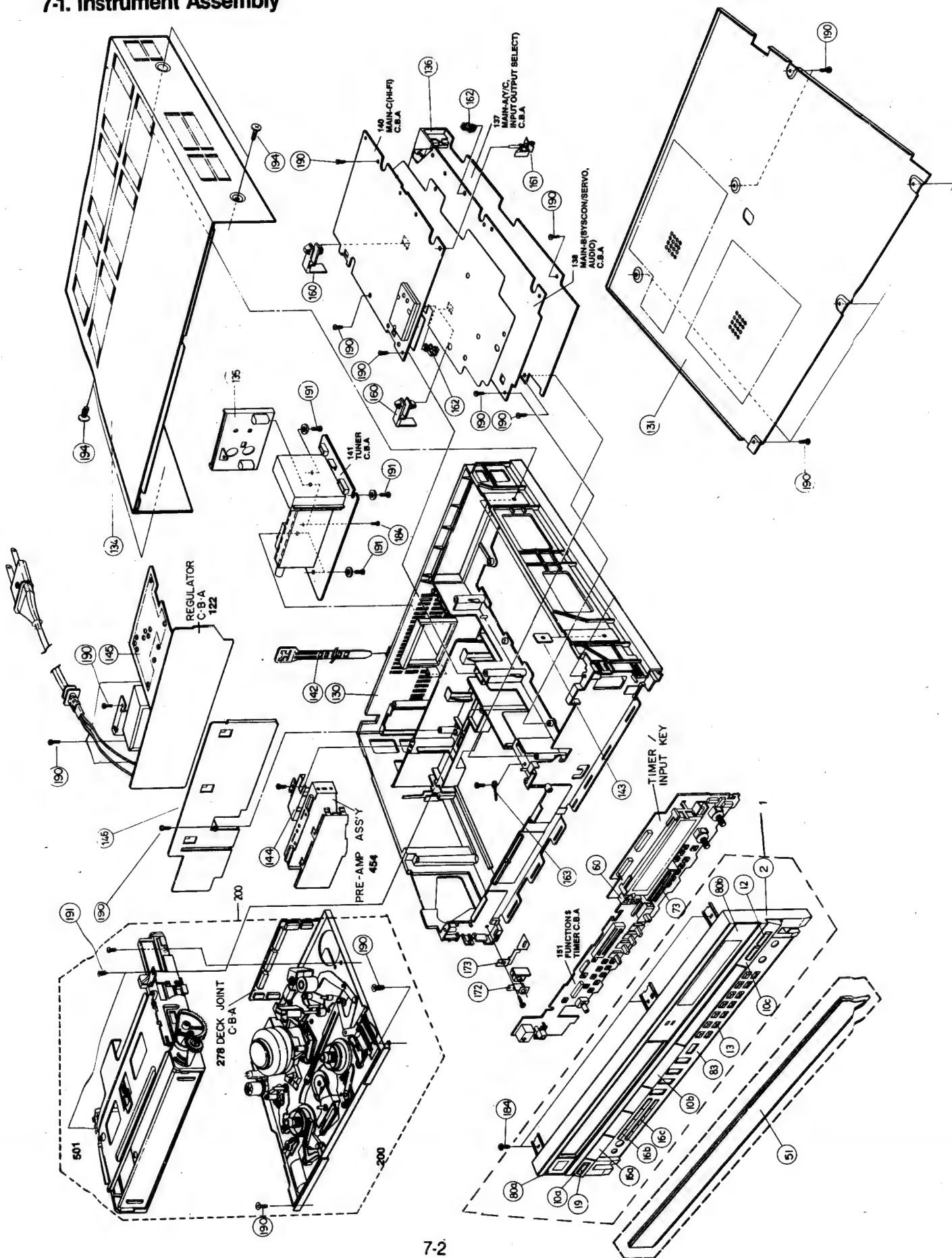
**7-2. Transport Mechanism Assembly ----- 7 - 3**

**7-3. Bottom Side Mechanism Assembly----- 7 - 4**

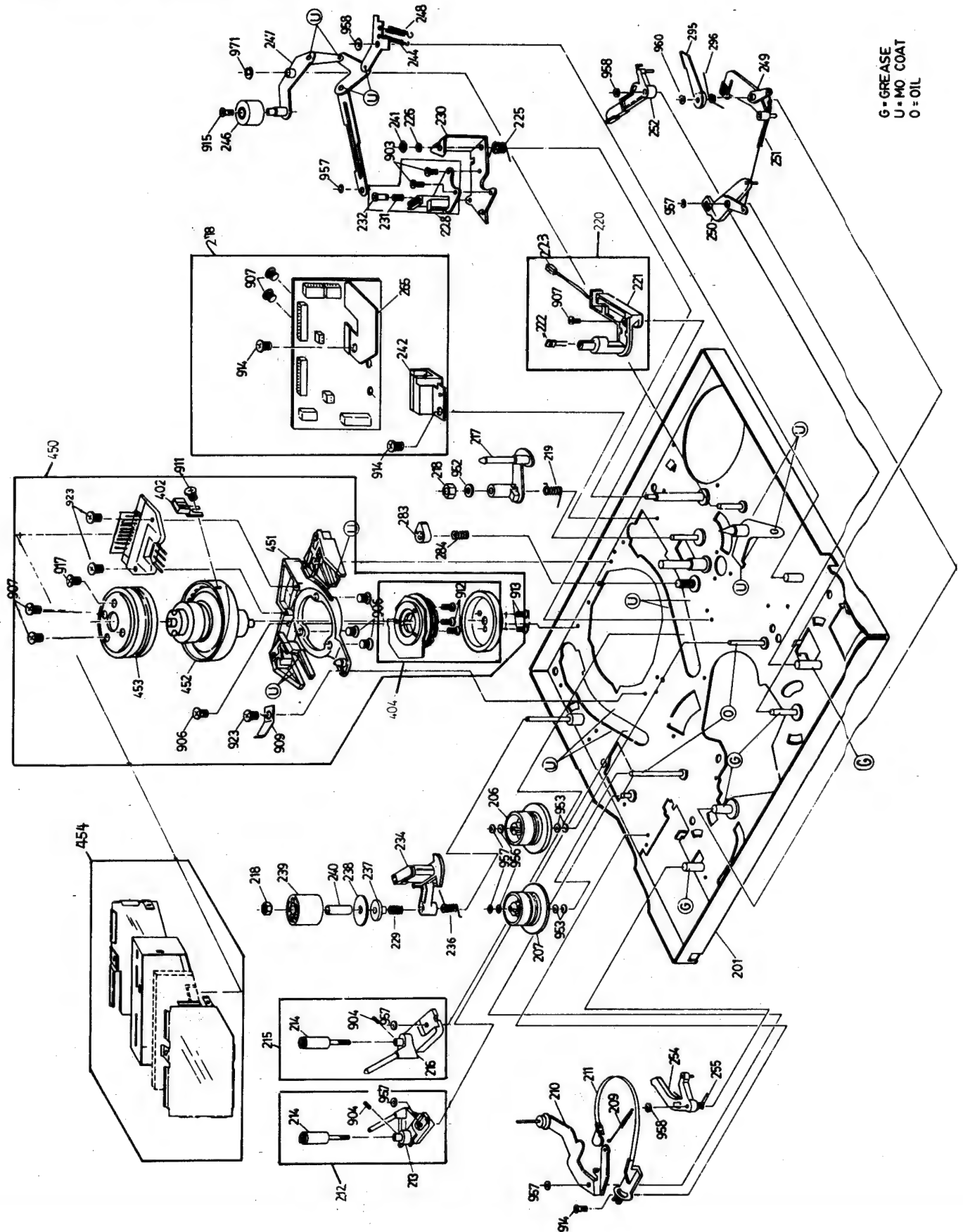
**7-4. Housing Assembly ----- 7 - 5**



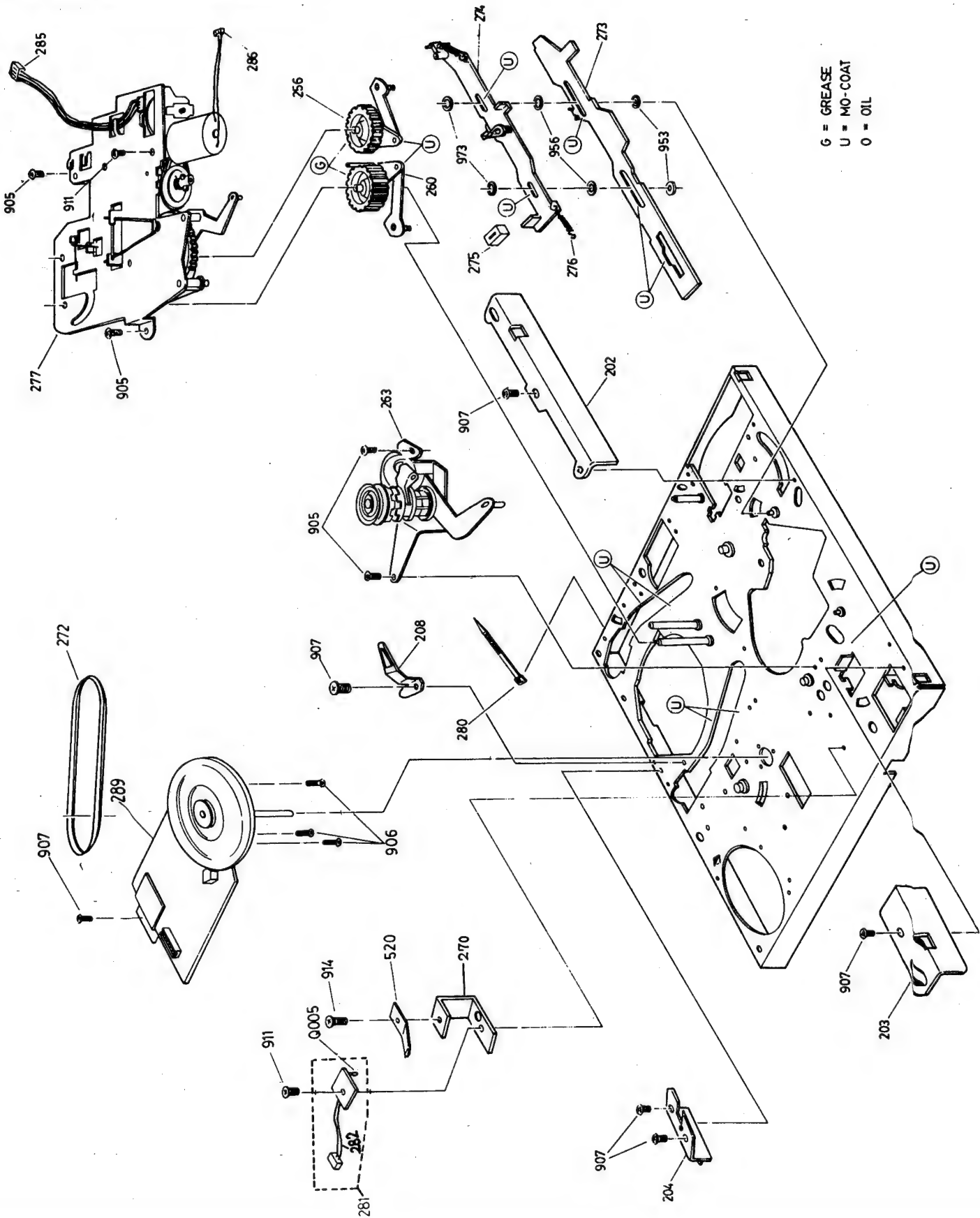
## 7-1. Instrument Assembly



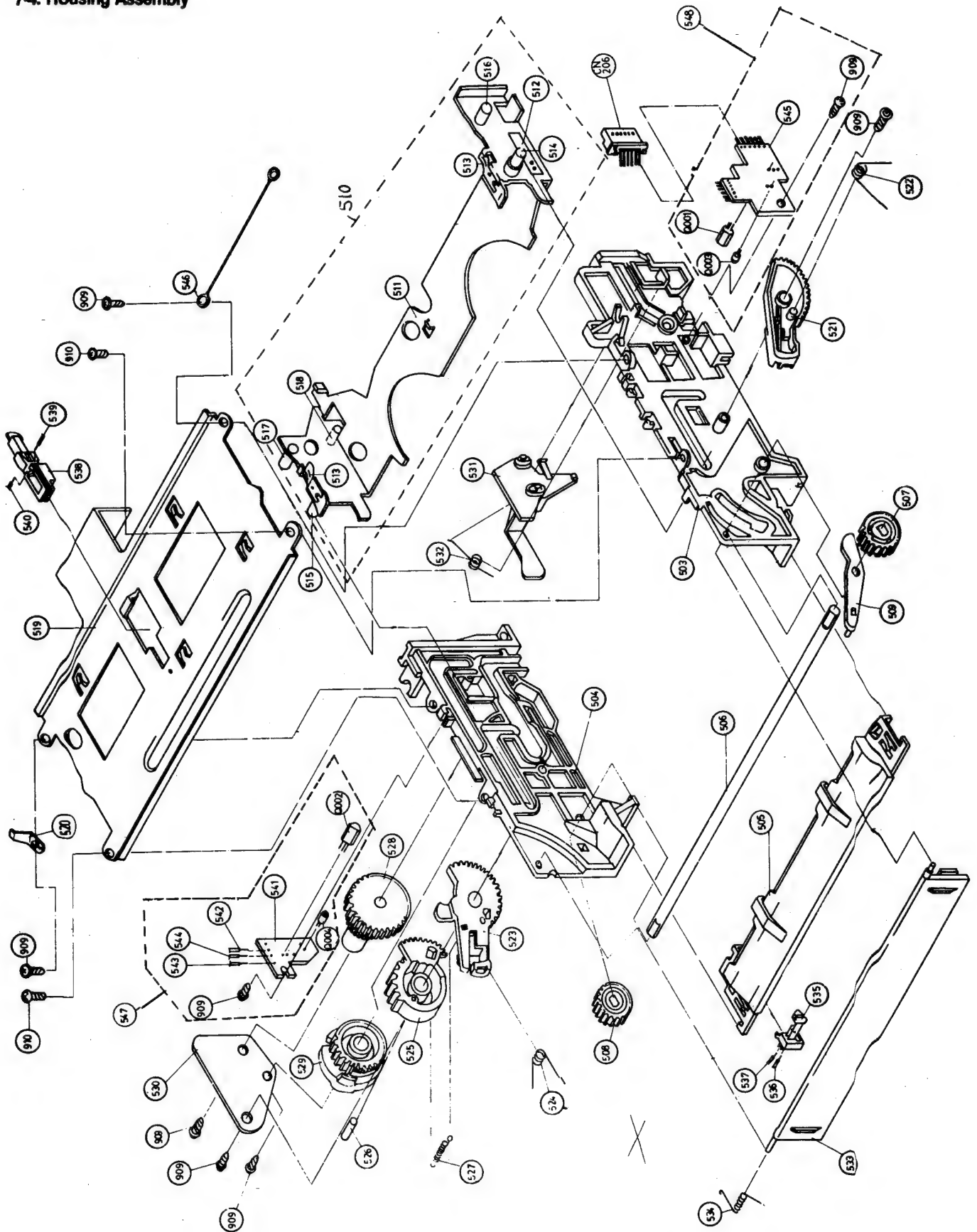
## 7.2. Transport Mechanical Assembly



7-3. Bottom Side Mechanical Assembly



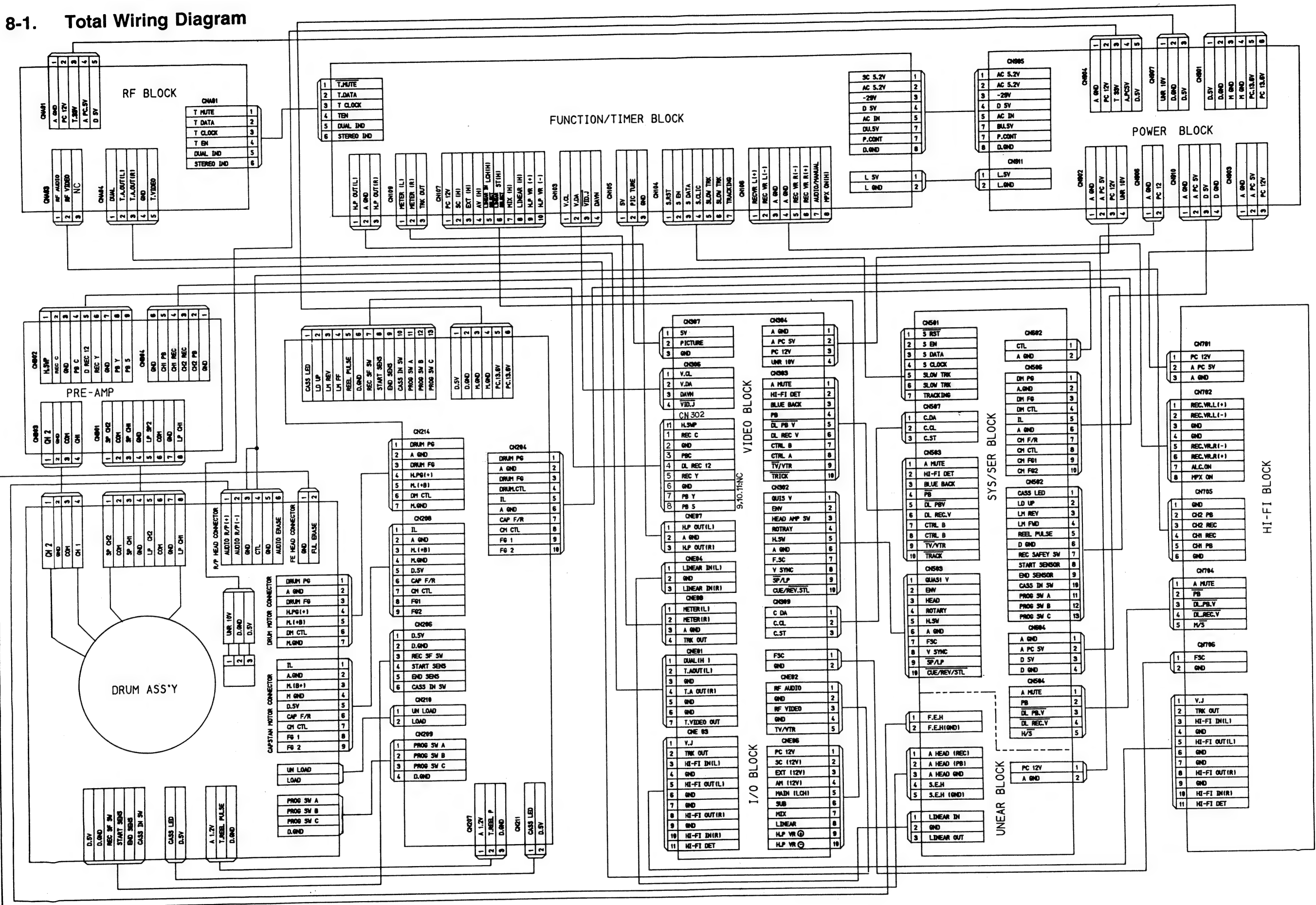
## 7-4. Housing Assembly



## **8. BLOCK DIAGRAMS**

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## 8-1. Total Wiring Diagram

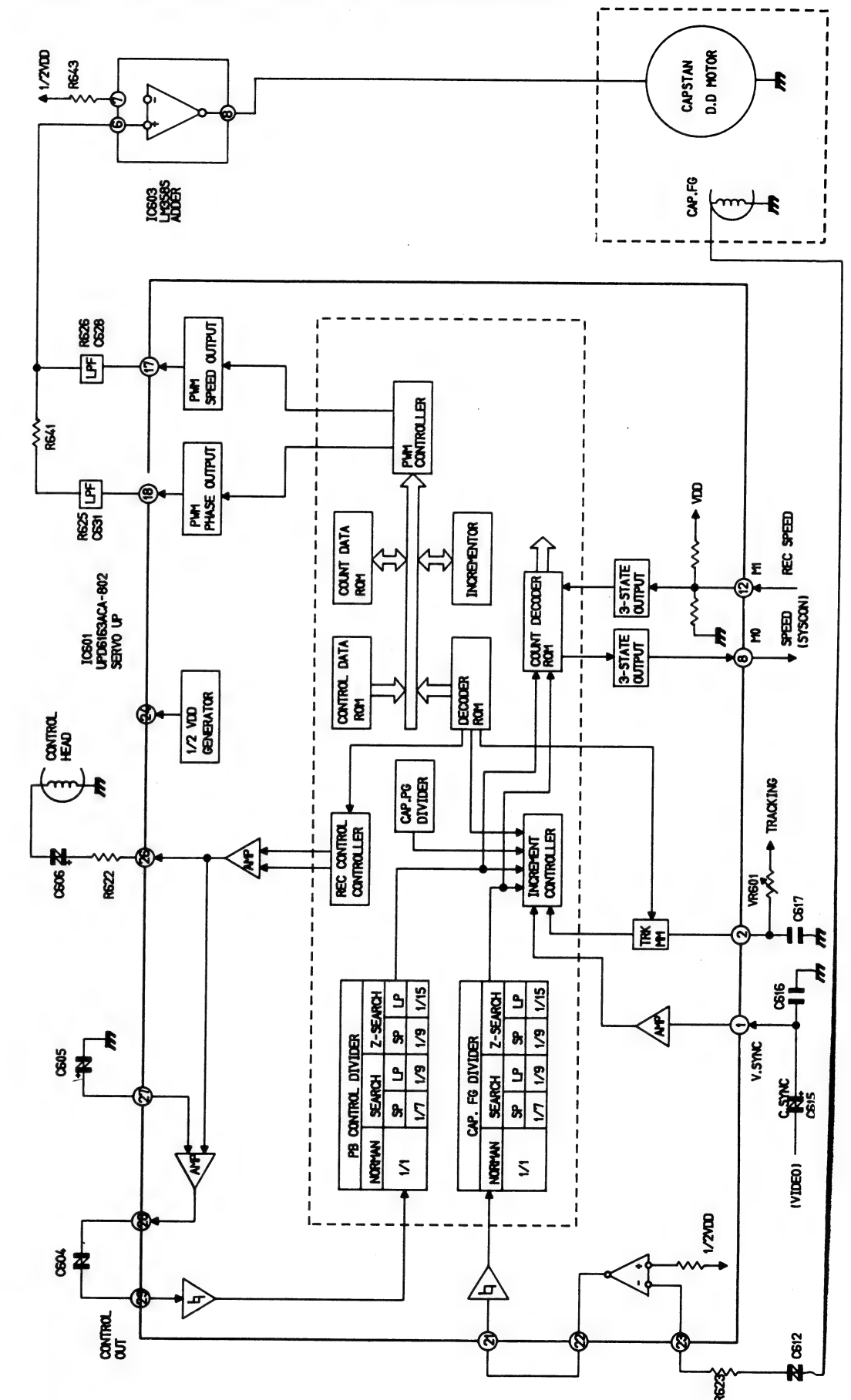


## 8-2. Servo Block

### 8-2-1. Drum Speed & Phase Control



### 8-2-2. Capstan Speed & Phase Control

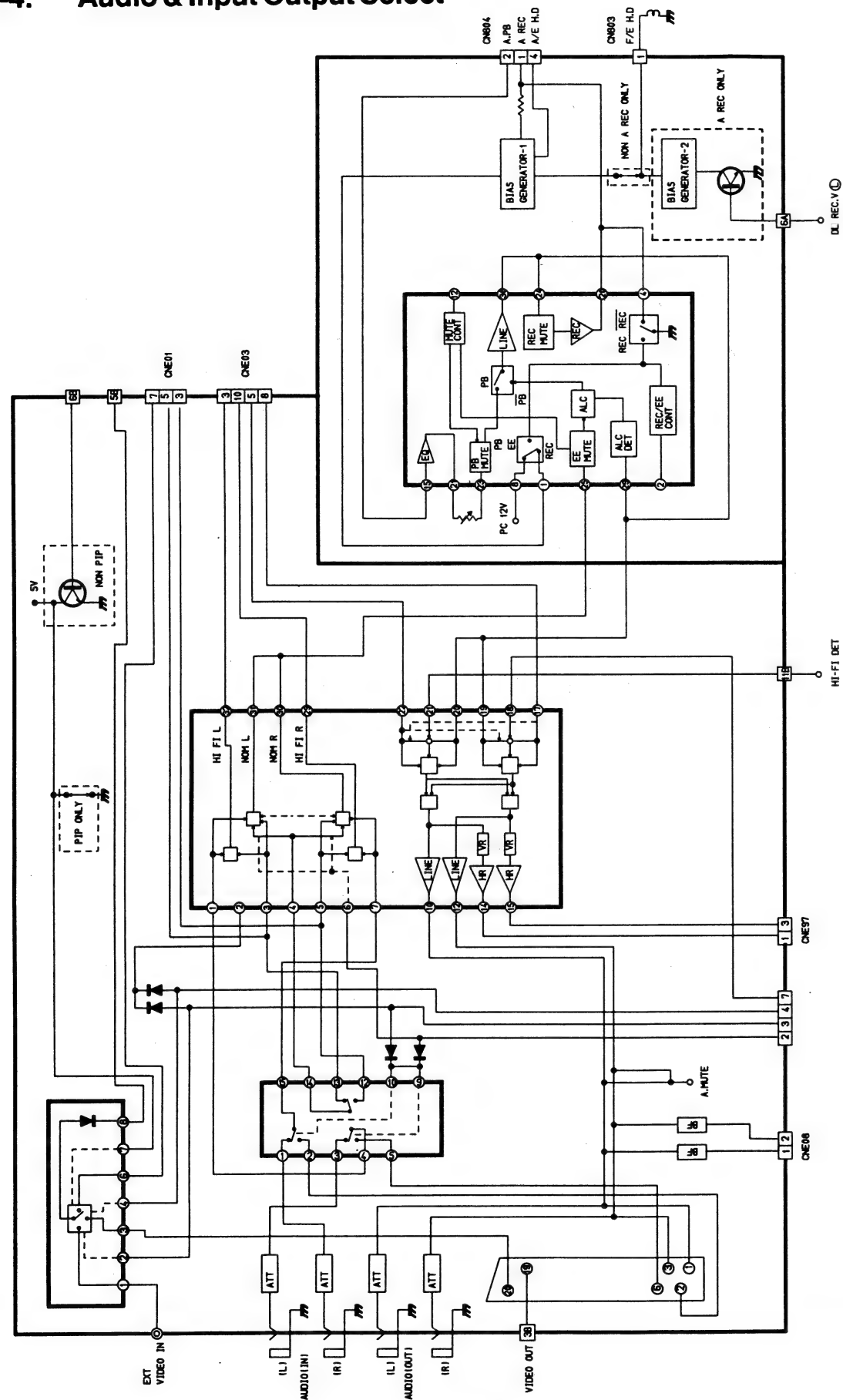




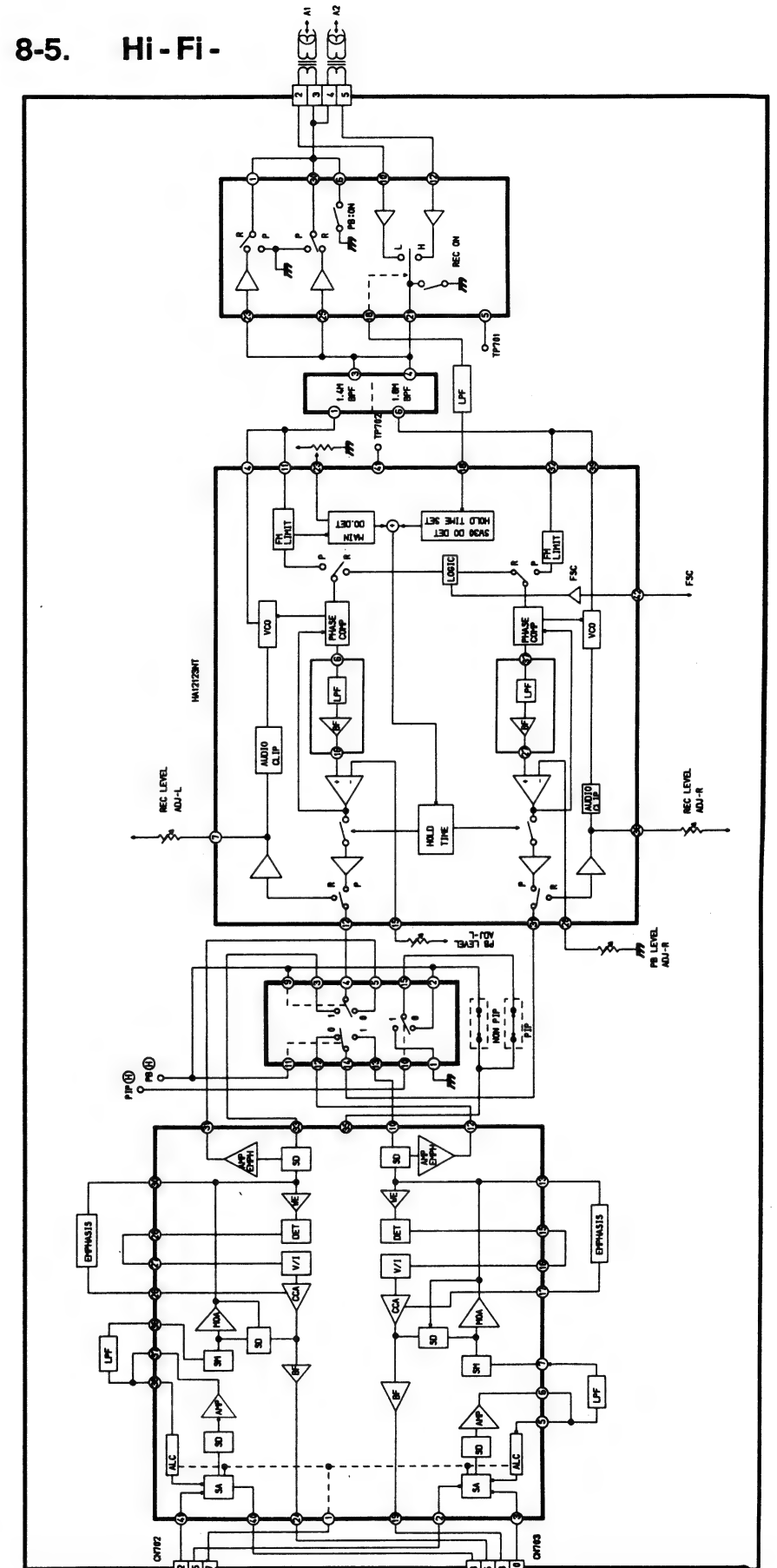




8-4. Audio & Input Output Select



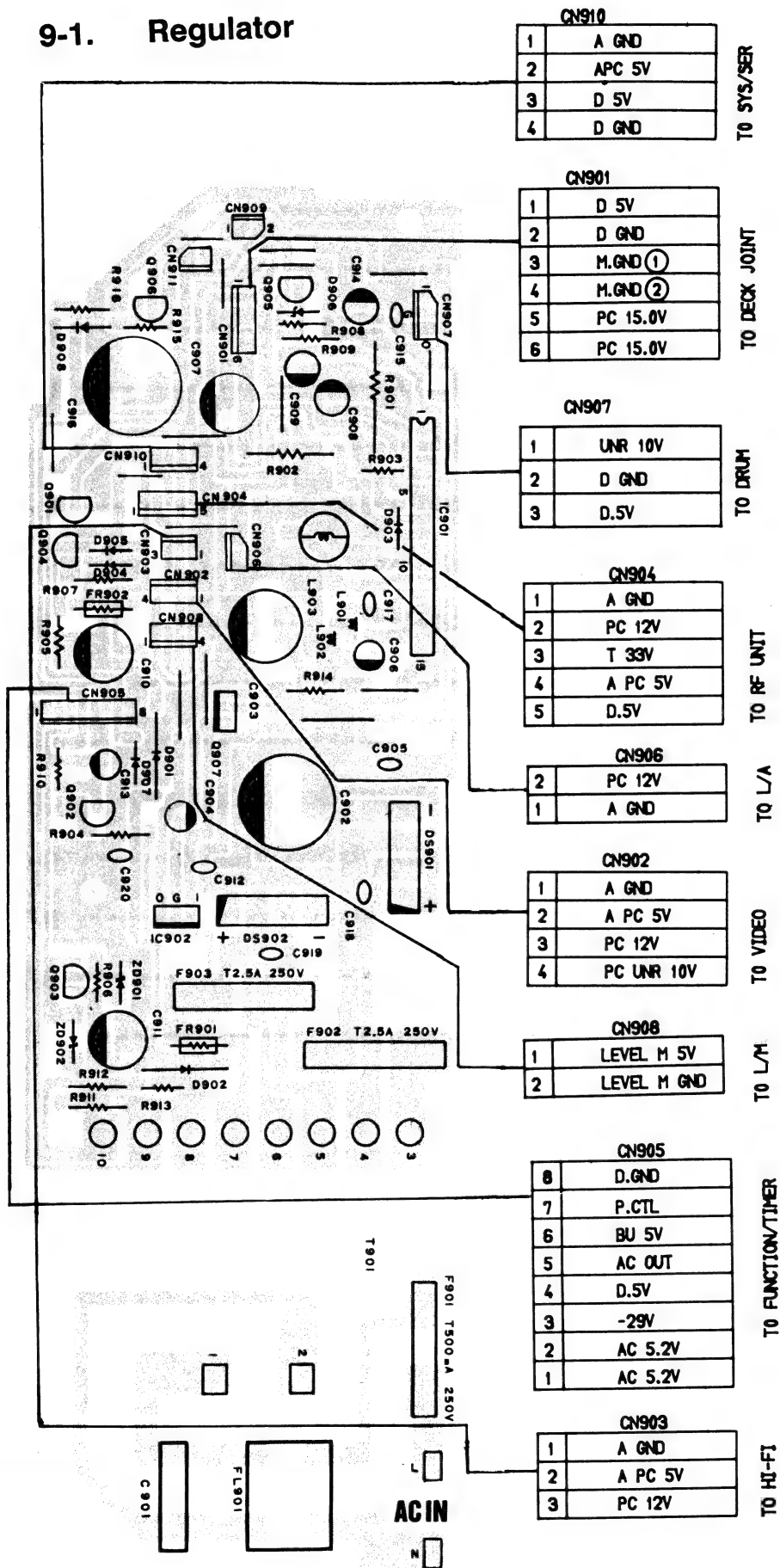
8-5. Hi-Fi -



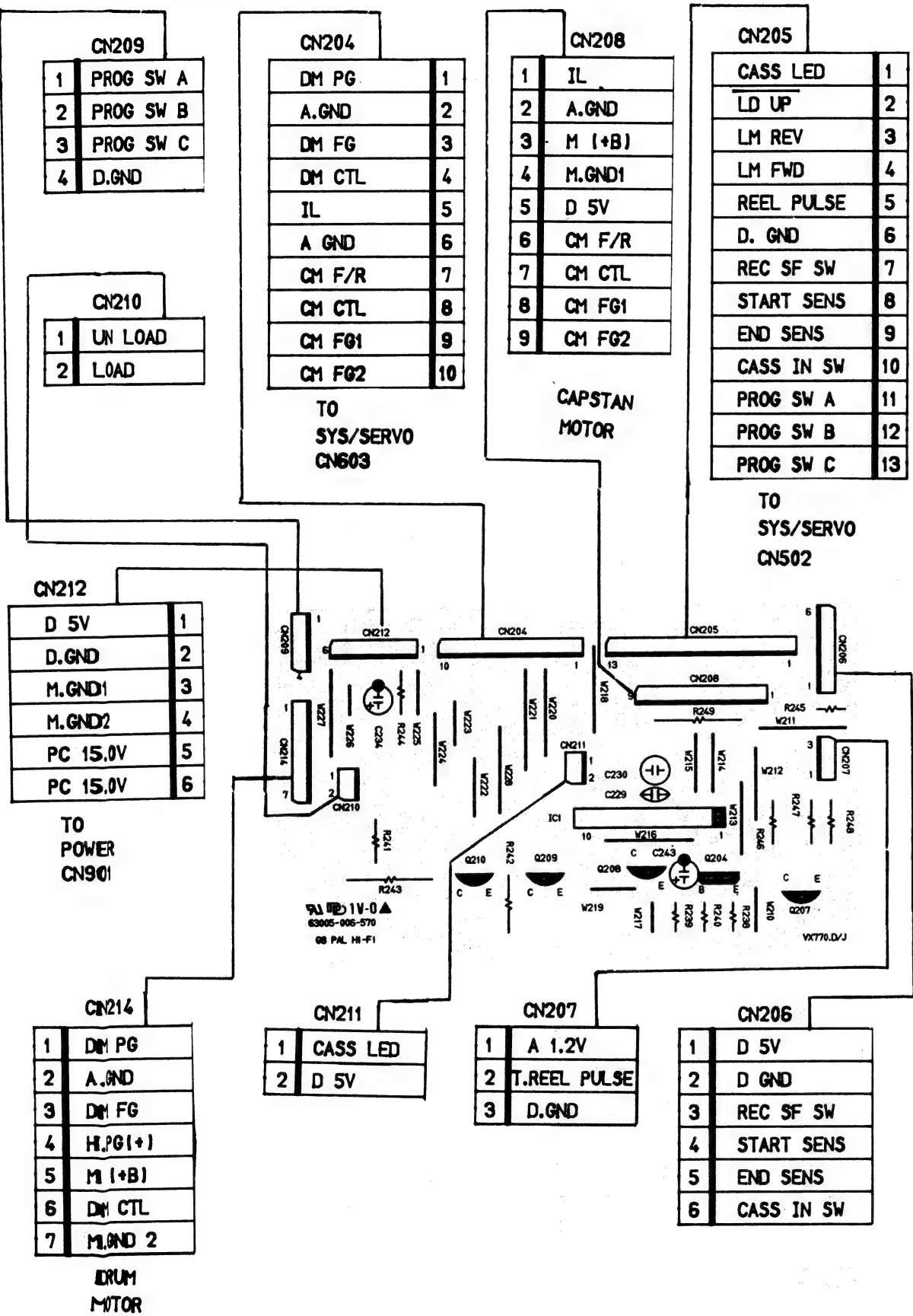
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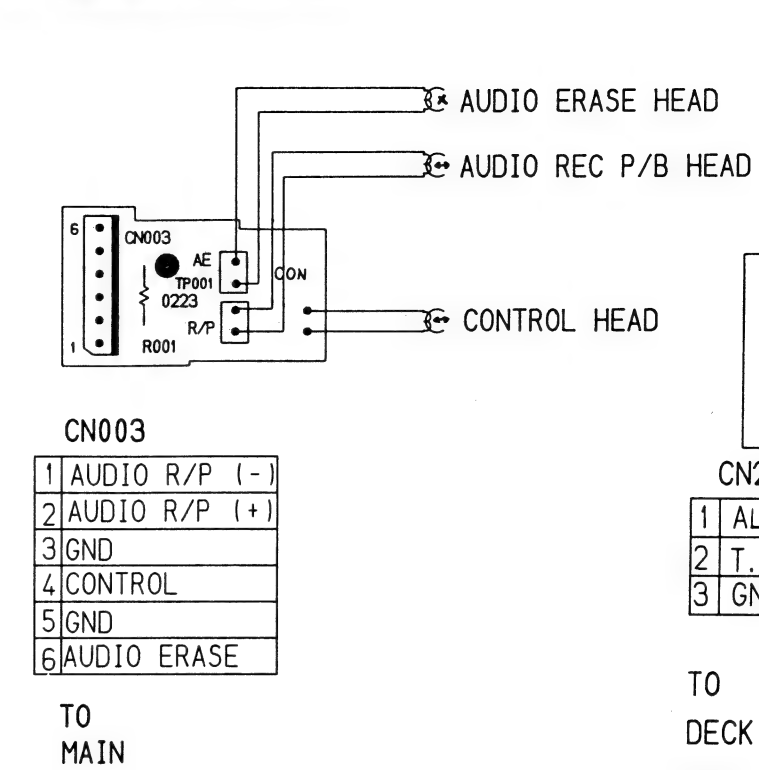
## 9-1. Regulator



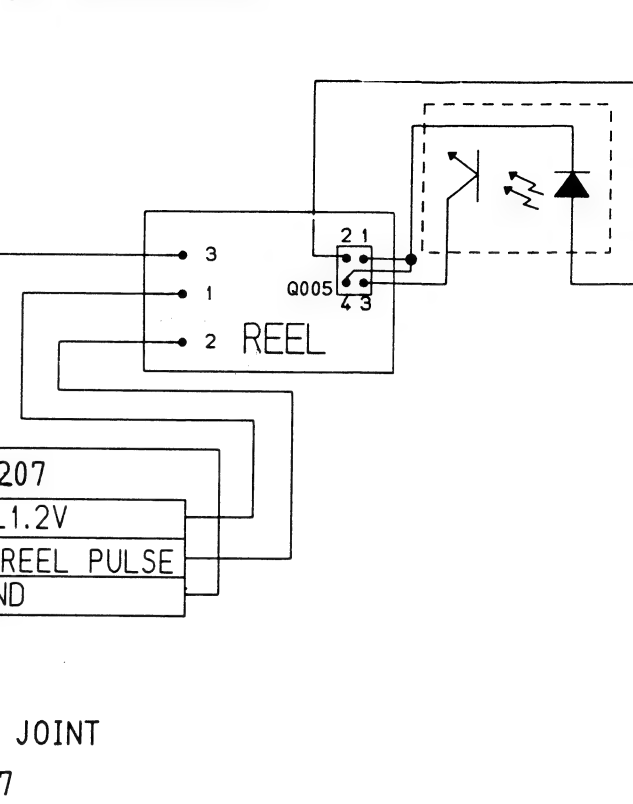
9-2. Deck Joint



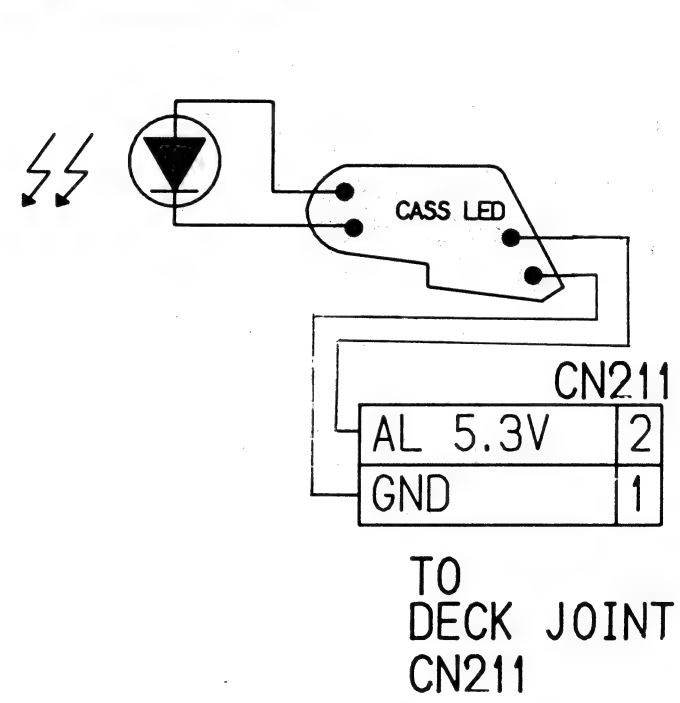
9-3. Audio/Control Head



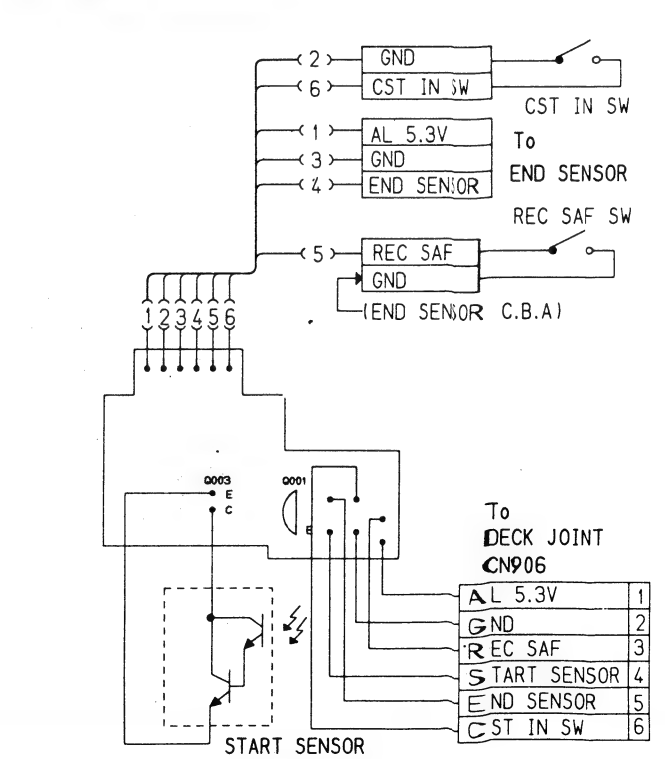
9-5. Reel Sensor



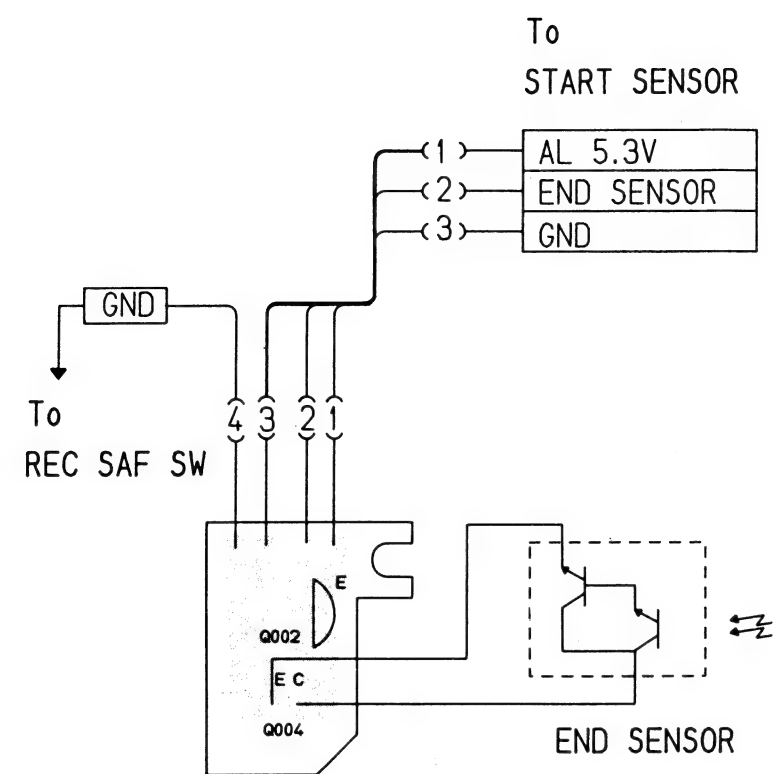
9-4. Cassette LED



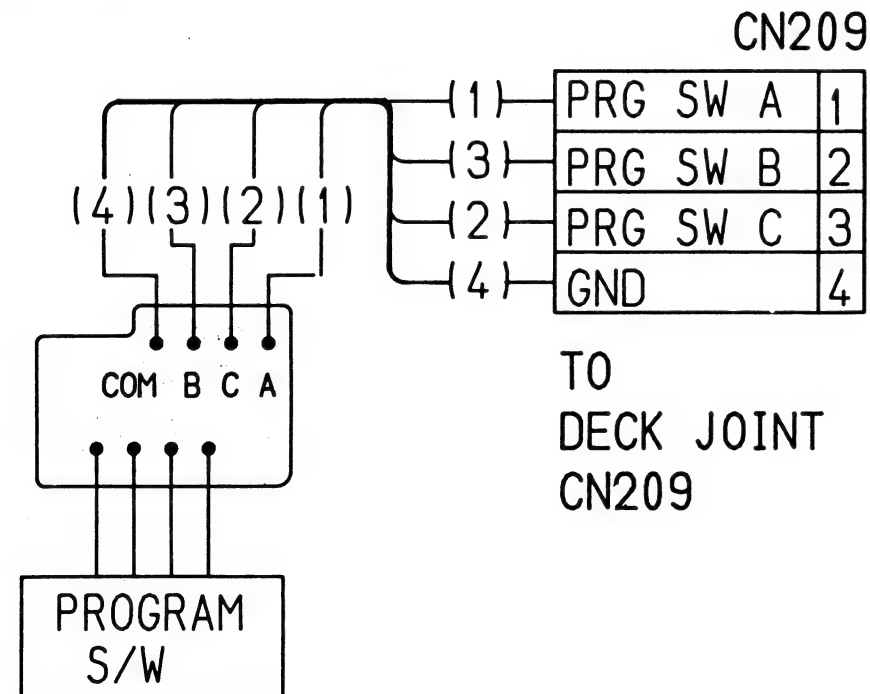
9-6. Start Sensor



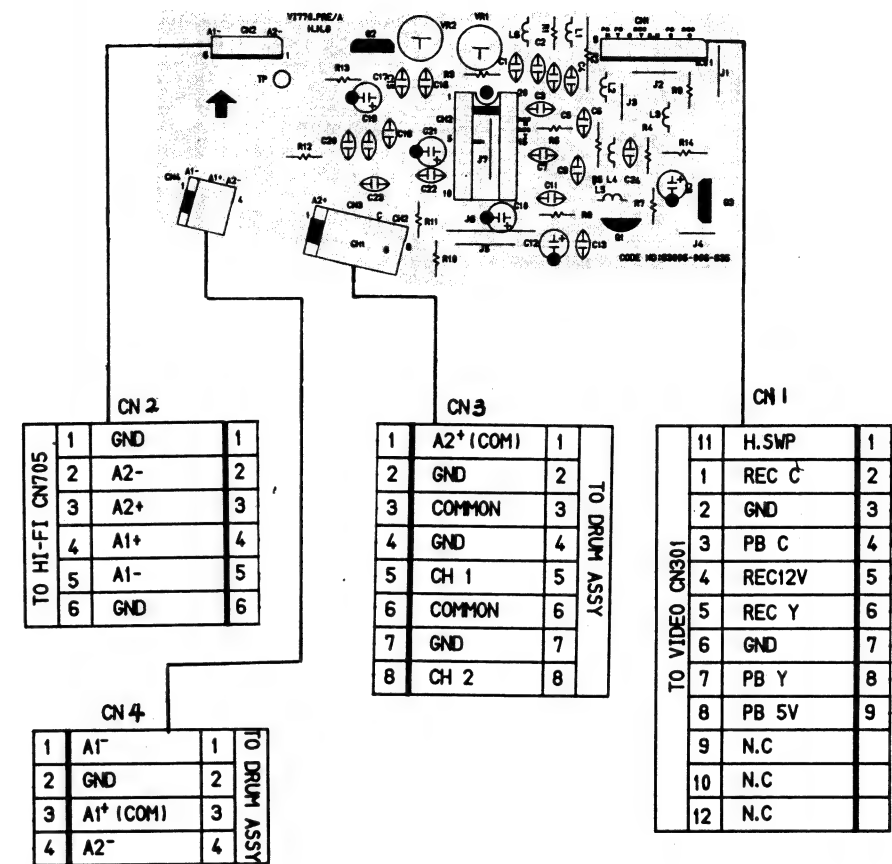
9-7. End Sensor



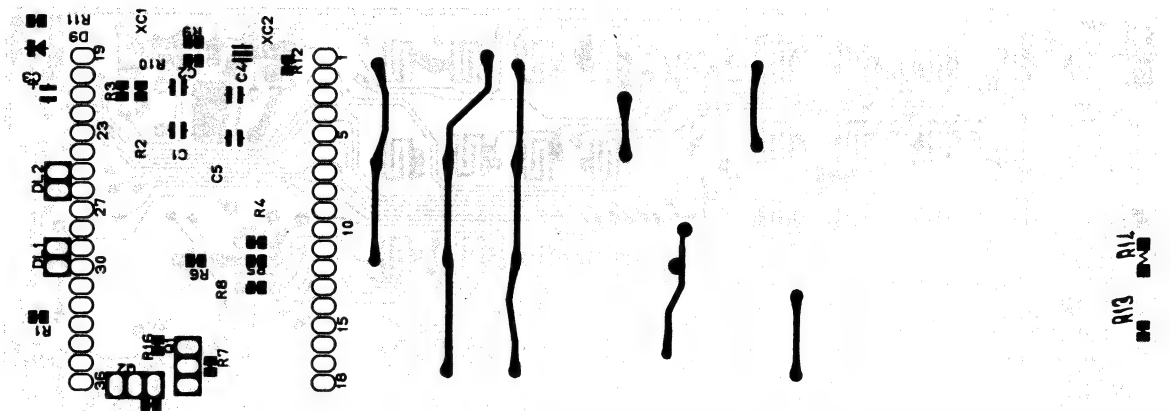
9-8. Program Switch



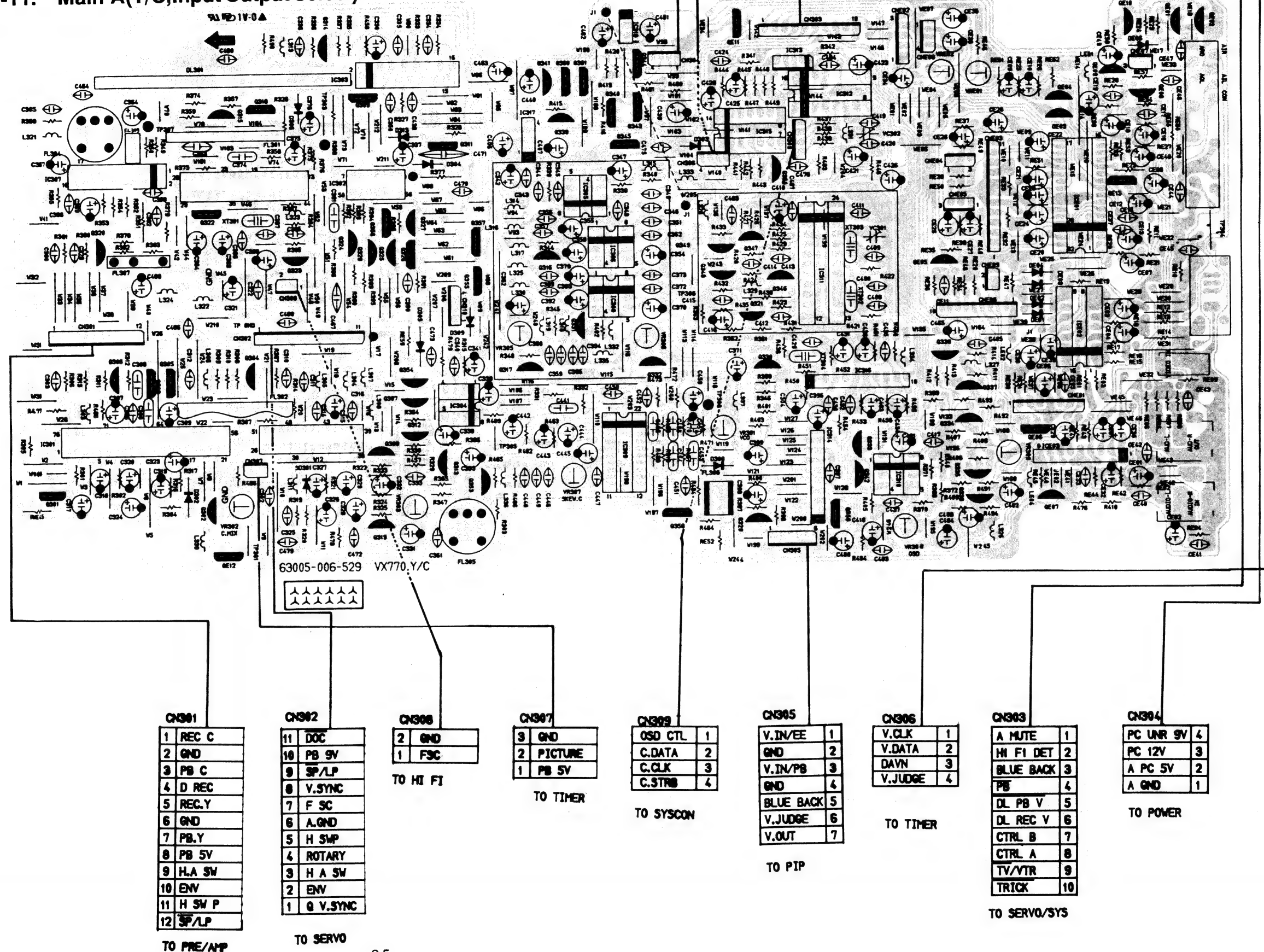
9-9. Pre AMP



9-10. Remote Control

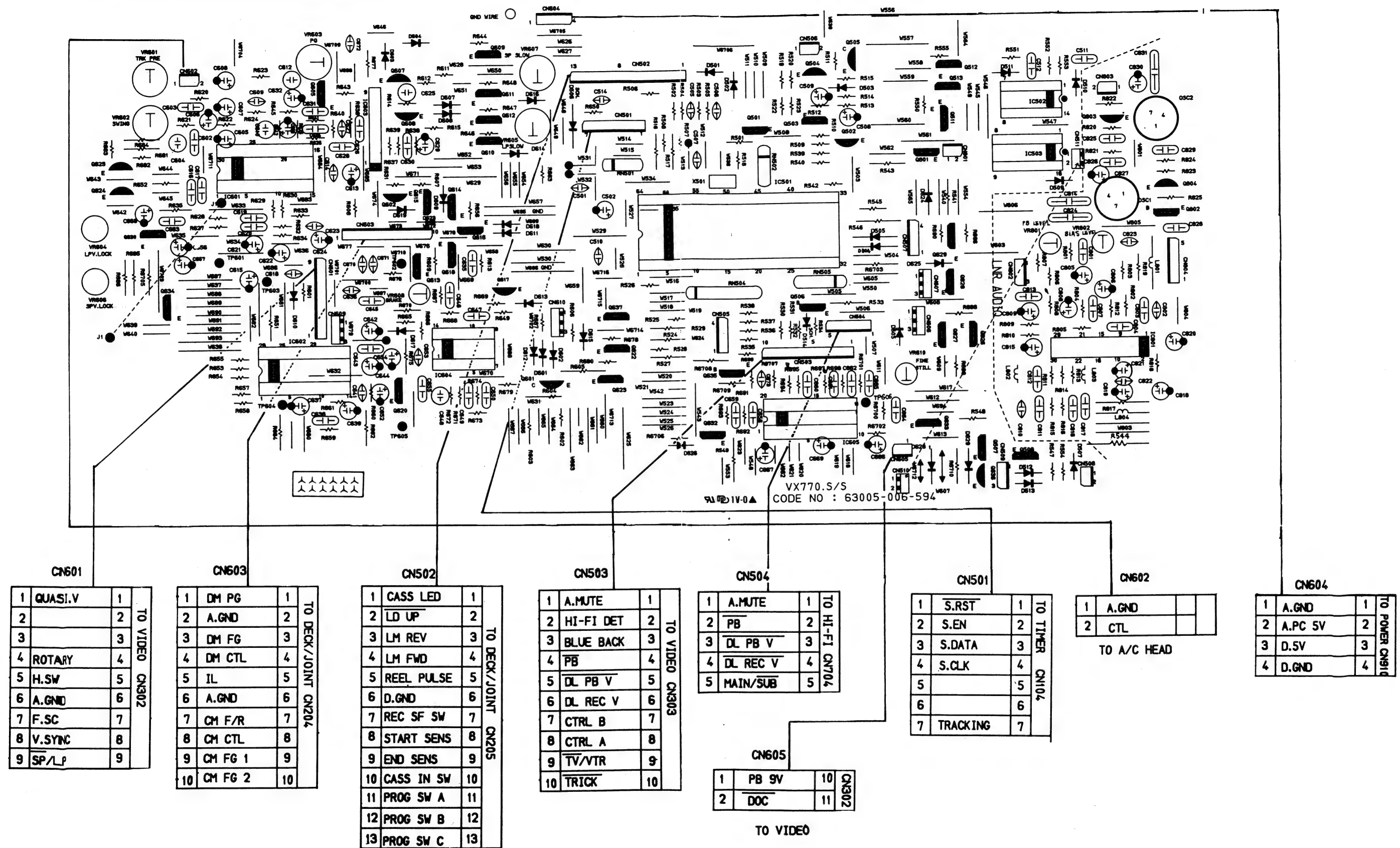


# 9-11. Main A(Y/C,Input Output Select)

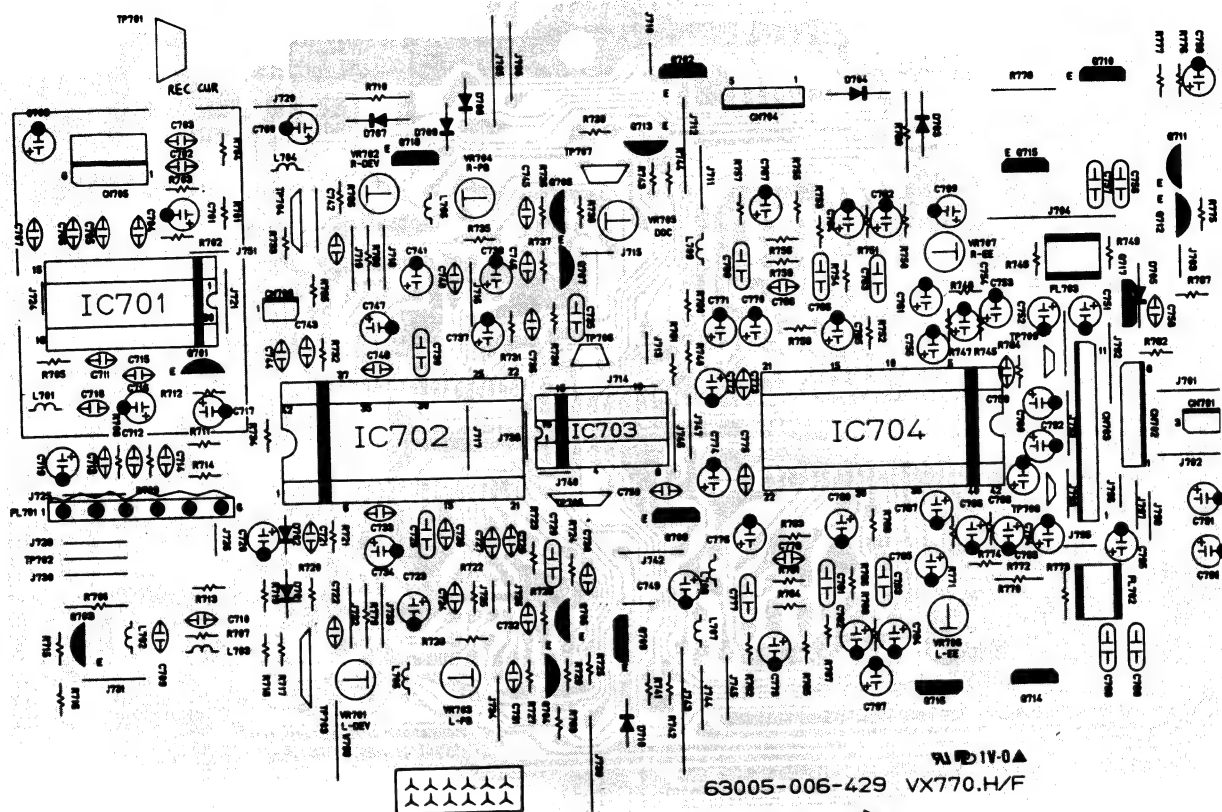




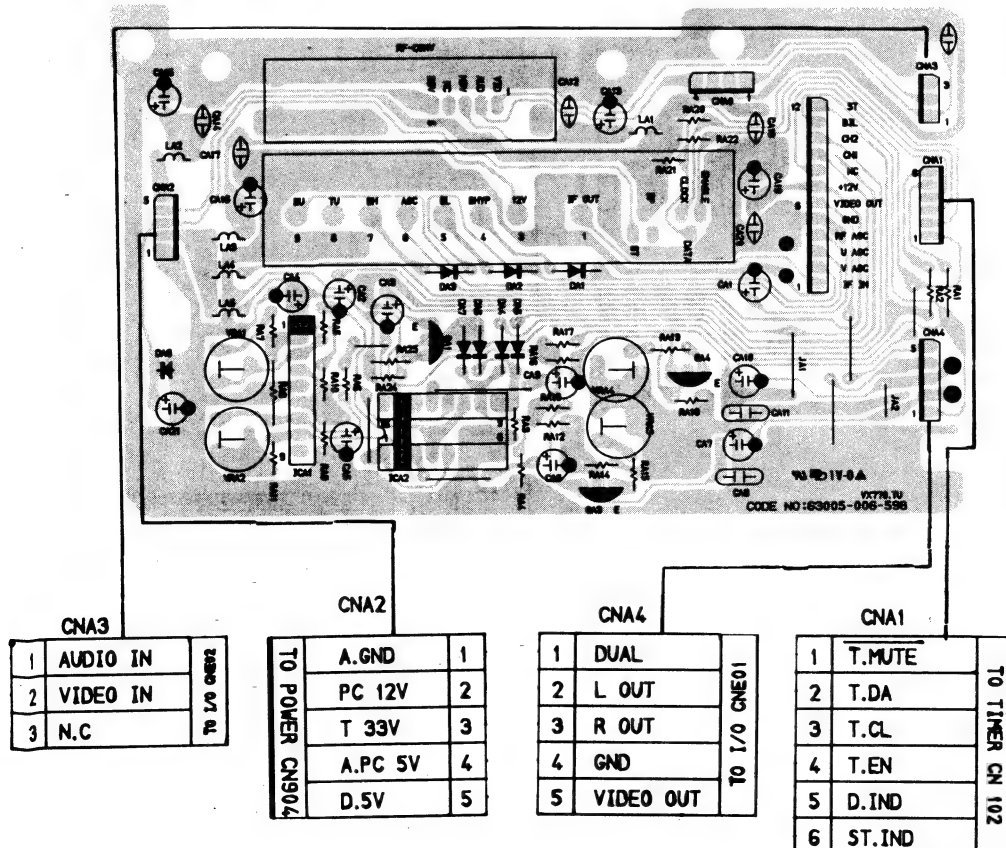
# 9-12. Main B(Syscon/Servo,Audio)



## 9-13. Main C (Hi-Fi)

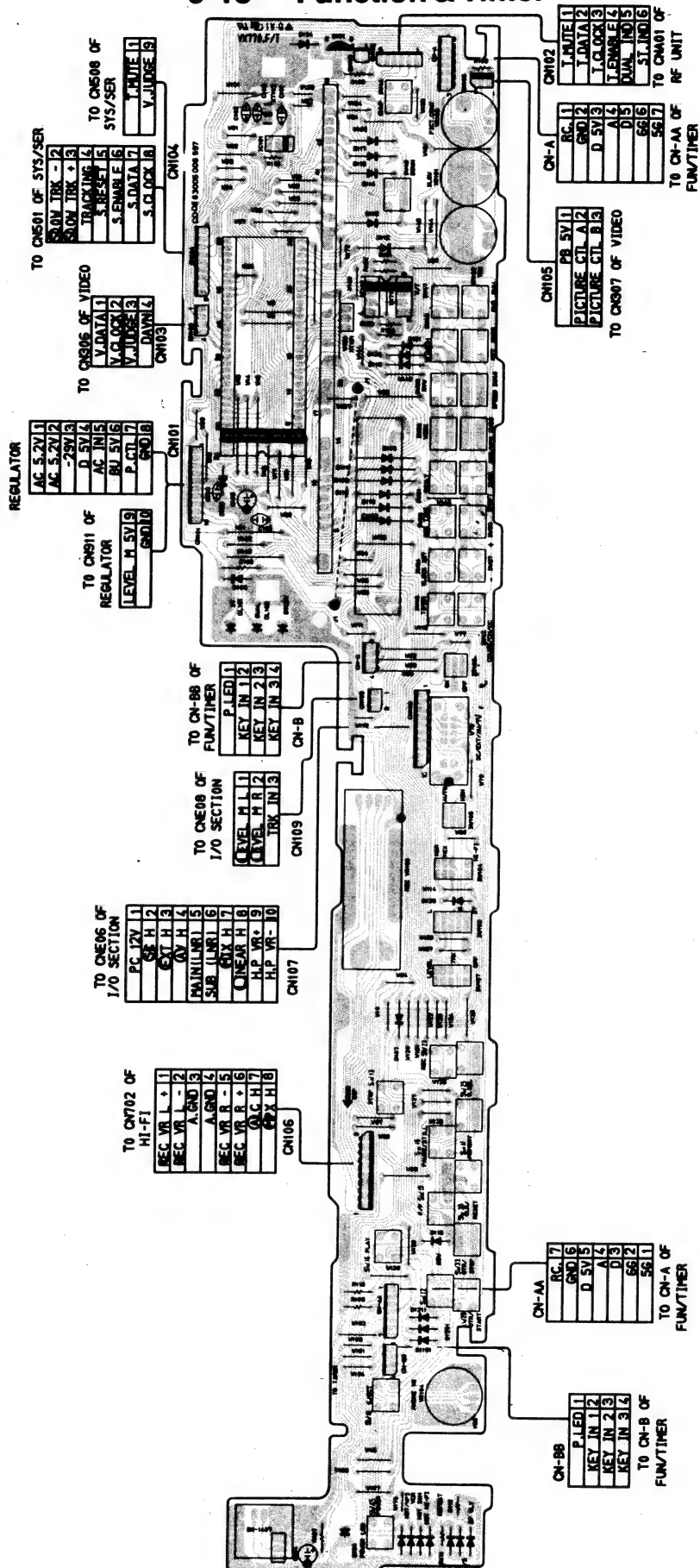


## 9-14. Tuner





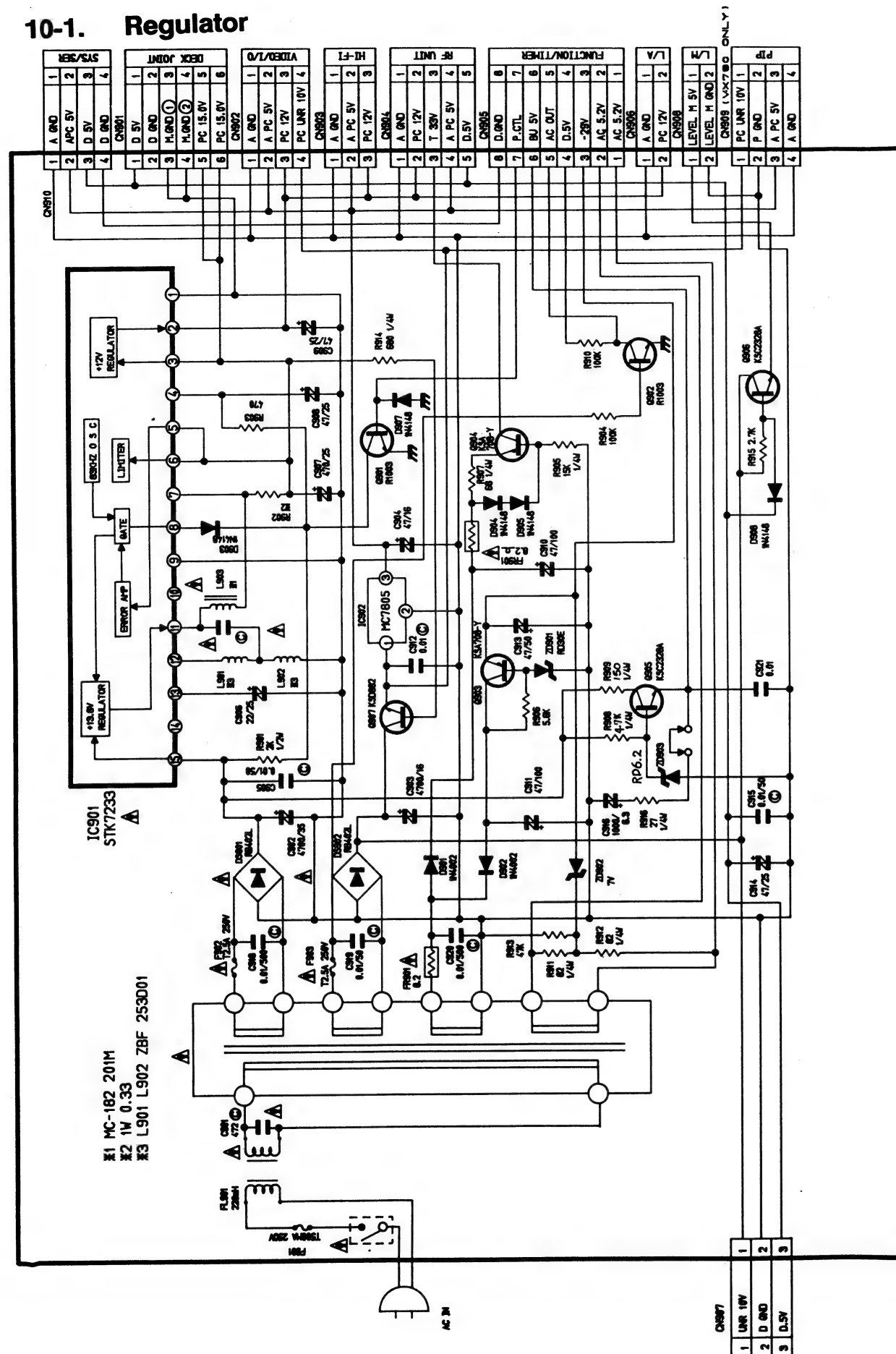
## 9-15 Function & Timer



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# 10-1. Regulator



TR REGULATOR C.B.A

MODE	R E C			P B			STOP			P F			R W D		
TR NO.	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Q 901	0	15.6	0	0	15.6	0	0	15.6	0	0	15.6	0	0	15.6	0
Q 903	-41.9	-30.2	-29.6	-41.9	-30.2	-29.6	-41.9	-30.2	-29.6	-41.9	-30.2	-29.6	-41.9	-30.2	-29.6
Q 904	-41.9	-40.9	-31.8	-41.9	-40.9	-31.8	-41.9	-40.9	-31.8	-41.9	-40.9	-31.8	-41.9	-40.9	-31.8
Q 906	5.06	5.64	9.45	5.06	5.64	9.45	5.06	5.64	9.45	5.06	5.64	9.45	5.06	5.64	9.45
Q 907	9.35	9.21	9.94	9.35	9.21	9.94	9.35	9.21	9.94	9.35	9.21	9.94	9.35	9.21	9.94
Q 909	5.06	5.64	17.8	5.06	5.64	17.8	5.06	5.64	17.8	5.06	5.64	17.8	5.06	5.64	17.8

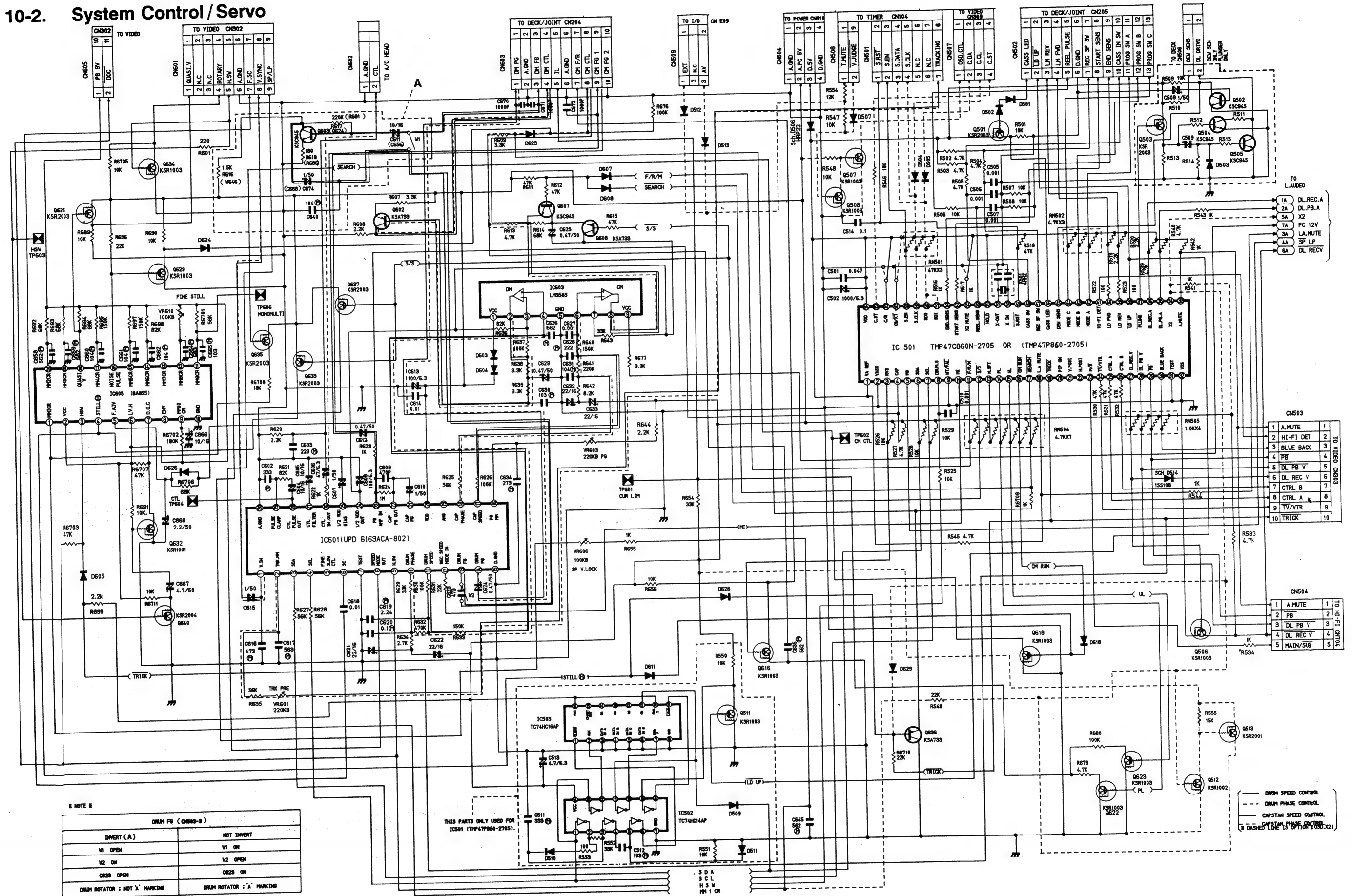
IC901 REGULATOR C.B.A

PIN NO	STOP	PLAY	RBC	P F	REW
1	0	0	0	0	0
2	11.9	11.9	11.9	11.9	11.9
3	15.0	15.0	15.0	15.0	15.0
4	14.8	14.8	14.8	14.8	14.8
5	15.0	15.0	15.0	15.0	15.0
6	15.0	15.0	15.0	15.0	15.0
7	15.1	15.1	15.1	15.1	15.1
8	3.7	3.7	3.7	3.7	3.7
9	0	0	0	0	0
10	0	0	0	0	0
11	15.2	15.2	15.2	15.2	15.2
12	0	0	0	0	0
13	7.9	7.9	7.9	7.9	7.9
14	0	0	0	0	0
15	19.1	19.1	19.1	19.1	19.1

IC902 REGULATOR C.B.A

PIN NO	STOP	PLAY	RBC	P F	REW
1	9.2	9.2	9.2	9.2	9.2
2	0	0	0	0	11.9
3	5.0	5.0	5.0	5.0	15.0

## 10-2. System Control/Servo



IC501(TMP47P8606N) MAIN "B" (SYSCON) C.B.A							
PIN NO	STOP	RBC	PLAY	REW	F.FWD	REV S.	FWD S.
1	4.7	4.8	4.7	4.7	4.7	4.7	4.7
2	0	0	0	0	0	0	0
3	0	0	0	3.6	0	3.6	0
4	0	5.0	4.9	5.0	5.0	4.9	4.9
5	0	0	0	0	0	0	0
6	4.9	5.0	4.9	4.9	4.9	4.9	4.9
7	4.9	5.0	4.9	4.9	4.9	4.9	4.9
8	-	-	-	-	-	-	-
9	0	0	0	0	0	0	0
10	4.9	5.0	4.9	4.9	4.9	4.9	4.9
11	5.0	5.0	4.9	0	0	4.9	4.9
12	5.0	5.0	4.9	5.0	5.0	4.9	4.9
13	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0
16	4.3	0	0	0	0	0	0
17	5.0	5.0	4.9	5.0	5.0	0	0
18	0	0	0	0	0	4.5	4.5
19	4.8	4.8	4.8	4.8	4.8	0	0
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	4.8	4.7	4.7	4.7	4.7	4.7
24	4.7	4.8	4.7	4.7	4.7	4.7	4.7
25	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0
27	0	4.5	0	0	0	0	0
28	4.4	4.5	0	4.4	4.4	0	0
29	4.7	5.0	0.2	4.7	4.7	0.2	0.2
30	4.6	0	0	4.6	4.6	0	0
31	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0
33	0	0	0	0	0	3.9	3.9
34	-	-	-	-	-	-	-
35	0	0	4.6	0	0	4.7	4.7
36	0	4.6	0	0	0	0	0
37	4.7	4.7	4.7	4.7	4.7	4.7	4.7
38	0	3.5	3.5	9.1	9.3	3.5	3.5
39	2.8	2.9	2.8	2.8	2.8	2.8	2.8
40	2.8	2.9	2.8	2.8	2.8	2.8	2.8
41	0.6	0.7	3.7	0.6	0.6	3.7	3.7
42	0	4.7	4.7	4.7	4.7	0	4.7
43	4.7	0	0	0	0	4.7	0
44	0	4.7	4.7	0	0	4.7	4.7
45	4.7	4.8	4.7	4.7	4.7	4.7	4.7
46	0	0	0	0	0	0	0
47	0	4.8	0	0	0	0	0
48	4.7	4.8	4.7	4.7	4.7	4.7	4.7
49	4.7	4.7	4.7	4.7	4.7	4.7	4.7
50	2.1	2.2	2.1	2.1	2.1	2.2	2.2
51	2.3	2.4	2.3	2.3	2.3	2.3	2.3
52	4.7	4.8	4.7	4.7	4.7	4.7	4.7
53	-	-	-	-	-	-	-
54	4.7	4.8	4.7	4.7	4.7	4.7	4.7
55	0	0	0	0	0	0	0
56	0	0	0	0	0	0	0
57	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-
61	0	0	0	0	0	0	0
62	4.7	4.8	4.7	4.7	4.7	4.7	4.7
63	-	-	-	-	-	-	-
64	4.7	4.8	4.7	4.7	4.7	4.7	4.7

IC601(UPD6163ACA-802) MAIN "B" (SERVO) C.B.A							
PIN NO	STOP	RBC	PLAY	REW	F.FWD	REV S.	FWD S.
1	2.8	2.7	2.7	2.7	2.7	2.7	2.7
2	-	-	-	-	-	-	-
3	4.9	4.9	4.9	4.9	4.9	4.9	4.9
4	4.9	4.9	4.9	4.9	4.9	4.9	4.9
5	-	-	-	-	-	-	-
6	2.5	2.6	2.5	2.5	2.5	2.5	2.5
7	0	0	0	0	0	0	0
8	0	-	-	0	0	-	-
9	0	-	-	-	-	-	-
10	2.5	2.0	2.2	2.5	2.5	2.2	2.2
11	5.0	2.5	2.5	5.0	5.0	2.4	2.4
12	5.0	5.0	4.9	5.0	5.0	4.9	4.9
13	2.5	2.5	2.4	2.5	2.5	2.4	2.4
14	2.5	2.5	2.4	2.5	2.5	2.4	2.4
15	0	0	0	0	0	0	0
16	-	-	-	-	-	-	-
17	-	2.6	2.5	2.4	2.4	2.5	2.5
18	-	2.4	-	2.5	2.5	-	-
19	-	-	-	-	-	-	-
20	5.0	5.0	4.9	5.0	5.0	4.9	4.9
21	2.5	2.5	2.4	2.4	2.4	2.4	2.4
22	2.5	2.5	2.5	2.5	2.5	2.5	2.5
23	2.5	2.5	2.4	2.4	2.4	2.4	2.4
24	2.5	2.5	2.4	2.5	2.5	2.4	2.4
25	2.5	2.5	2.4	2.5	2.5	2.4	2.4
26	2.4	3.5	2.4	2.4	2.4	2.4	2.4
27	2.5	3.0	2.4	2.5	2.5	2.4	2.4
28	0.9	2.3	0.9	0.9	0.9	0.9	0.9
29	2.8	2.2	2.5	2.8	2.8	2.5	2.5
30	0	0	0	0	0	0	0

IC603 (LM358S) MAIN "B" (SERVO) C.B.A							
PIN NO	STOP	RBC	PLAY	REW	F.FWD	REV S.	FWD S.
1	6.1	6.2	6.1	6.2	6.2	6.1	6.1
2	4.9	2.4	2.3	4.9	4.9	2.3	2.3
3	2.9	2.4	2.4	2.9	2.9	2.4	2.4
4	4.4	2.5	2.4	4.4	4.4	2.4	2.4
5	0	0	0	0	0	0	0
6	4.1	2.5	2.4	2.5	2.5	2.4	2.4
7	2.5	2.5	2.4	2.4	2.4	2.4	2.4
8	4.5	3.4	3.4	3.4	3.4	3.5	3.4
9	6.1	6.2	6.1	6.2	6.2	6.1	6.1

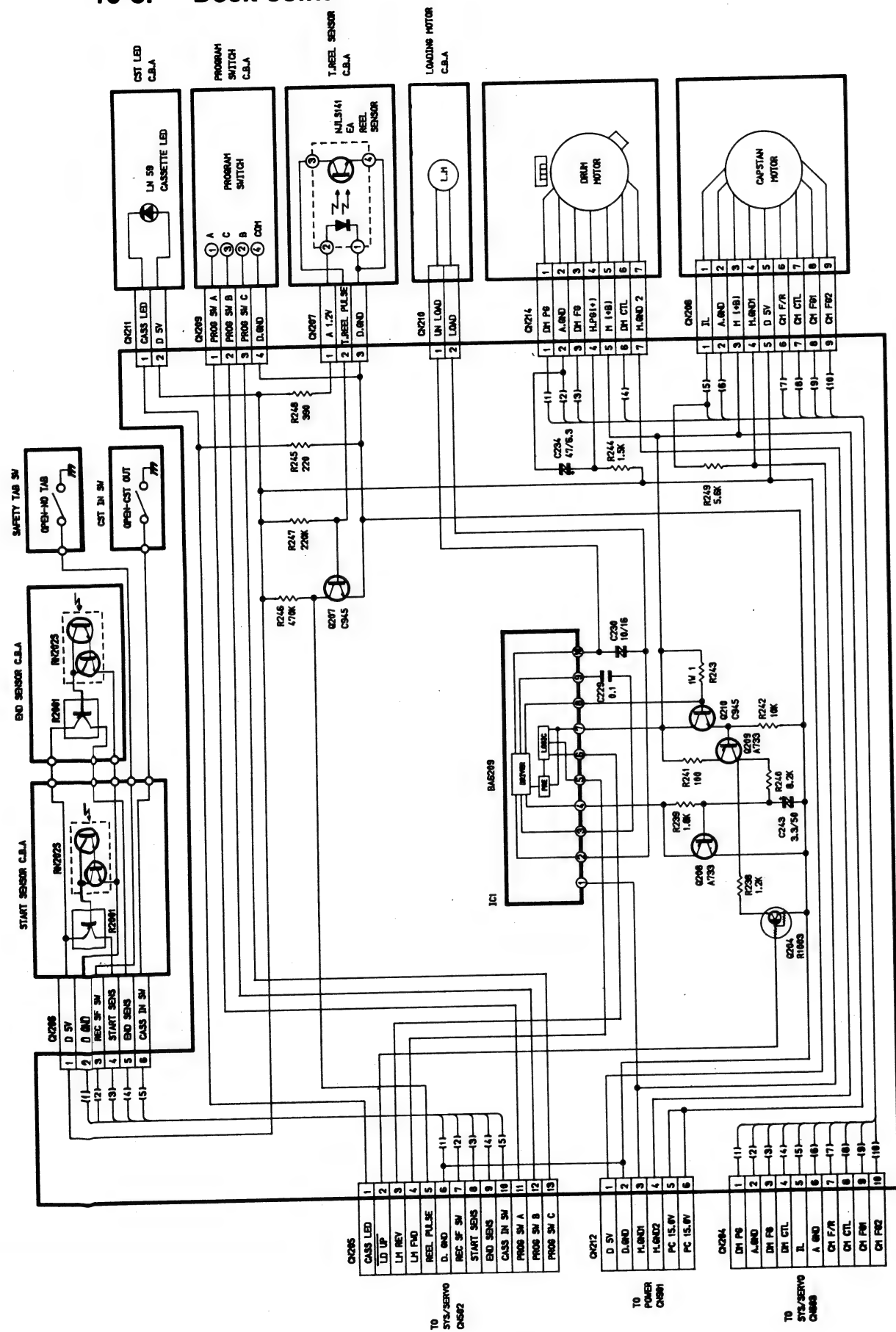
IC605 (BA855A) MAIN "B" (SERVO) C.B.A							
PIN NO	STOP	RBC	PLAY	REW	F.FWD	REV S.	FWD S.
1	-	-	-	-	-	-	-
2	0.5	0.6	8.9	0.5	0.5	8.9	8.9
3	-	-	-	-	-	-	-
4	0.5	0	0.3	0	0	0.3	0.3
5	0	5.0	4.9	4.9	4.9	4.9	4.9
6	0.5	0.6	8.9	0.5	0.5	8.9	8.9
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	0.5	0.5	0	0.5	0.5	0	0
10	0	0	0	0	0	0	0
11	0.5	0.6	0	0.5	0.5	0	0
12	0.5	0.6	8.9	0.5	0.5	0	0
13	-	-	-	-	-	-	-
14	0.5	0.6	0	0.5	0.5	0	0
15	0.5	0.6	0	0.5	0.5	0	0
16	2.7	2.8	2.7	2.7	2.7	2.7	2.7
17	0.5	0.6	0	0.5	0.5	0	0
18	3.4	3.5	6.4	3.4	3.4	6.3	6.3
19	0.5	0.6	0	0.5	0.5	0	0
20	0.5	0.6	8.9	0.5	0.5	0	0

TR MAIN "B" (SERVO) C.B.A																						
MODE		STOP			REC			PLAY			REW			F.FWD			REV S.			FWD S.		
TR NO.	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	
Q 602	5.0	4.9	0	3.0	2.4	1.6	3.0	2.4	1.3	5.0	5.0	0	5.0	5.0	0	3.0	2.4	1.3	3.0	2.4	1.3	
Q 607	4.7	5.0	4.5	3.4	3.9	3.4	3.4	4.0	3.4	3.4	0.6	3.4	0	0.6	3.4	3.5	0.6	3.5	3.5	0.6	3.4	
Q 608	4.5	5.0	2.5	3.4	5.0	2.5	3.4	5.0	0	3.4	5.0	0	3.4	5.0	0	3.5	5.0	0	3.4	5.0	0	
Q 616	0	0	3.3	0	0	3.5	0	0	3.4	0	0	3.4	0	0	3.7	0	0	3.7	0	0	3.4	
Q 618	0	3.8	0	0	0	3.2	0	0	3.2	0	0	3.3	0	0	3.2	0	0	3.3	0	0	3.2	
Q 622	0	0	0.7	0	0	0.7	0	0.1	0.7	0	0.1	0.7	0	0.1	0.7	0	0.1	0.7	0	0.1	0.7	
Q 623	0	0	0.7	0	0	0.7	0	0.1	0.7	0	0.1	0.7	0	0.1	0.7	0	0.1	0.7	0	0.1	0.7	
Q 626	5.0	3.5	5.0	5.0	3.5	5.0	5.0	6.5	0	5.0	3.5	5.0	5.0	3.5	5.0	5.0	6.4	0	5.0	6.4	0	
Q 629	0	2.8	0	0	2.8	0	0	2.8	0	0	2.8	0	0	2.8	0	0	2.8	0	0	2.8	0	
Q 632	0	0.3	0.6	0	0.3	0.6	0	3.4	0	0	0.3	0.6	0	0.3	0.6	0	3.4	0	0	3.4	0	
Q 633	5.0	0.4	5.0	5.0	5.0	0	5.0	5.0	0.4	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0.3	5.0	5.0	0.3	
Q 634	0	0	5.0	0	2.5	3.0	0	2.6	3.0	0	0	5.0	0	0	5.0	0	2.5	3.0	0	2.5	3.0	
Q 635	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	5.0	0.3	5.0	5.0	0.3	5.0	
Q 636	5.0	4.8	0	0	4.9	0	5.0	4.9	0	5.0	4.8	0	5.0	4.8	0	0.3	0.2	0	0.3	0.2	0	
Q 637	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	5.0	5.0	0	
Q 640	0.5	0.2	0	0.5	0.3	0	6.2	4.9	0	0.5	0.2	0	0.5	0.2	0	6.0	4.6	0	6.1	4.6	0	

TR MAIN "B" (SYSCON) C.B.A																					
M O D E	S T O P			R E C			P L A Y			R E W			F.FWD			R E V S.			F W D S.		
TR NO.	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E	B	C
Q 501	4.8	4.6	0	4.8	4.6	0	4.8	4.6	0	4.8	4.6	0	4.8	4.6	0	4.8	4.6	0	4.8	4.6	0
Q 506	0.1	0.1	3.7	0	4.5	0	0	0.1	3.7	0	0.1	3.7	0	0.1	0	0	0.1	3.7	0	0.1	3.7
Q 511	0	0	5.0	0	3.5	0	0	0	5.0	0	0	5.0	0	0	5.0	0	3.5	0	0	3.5	0

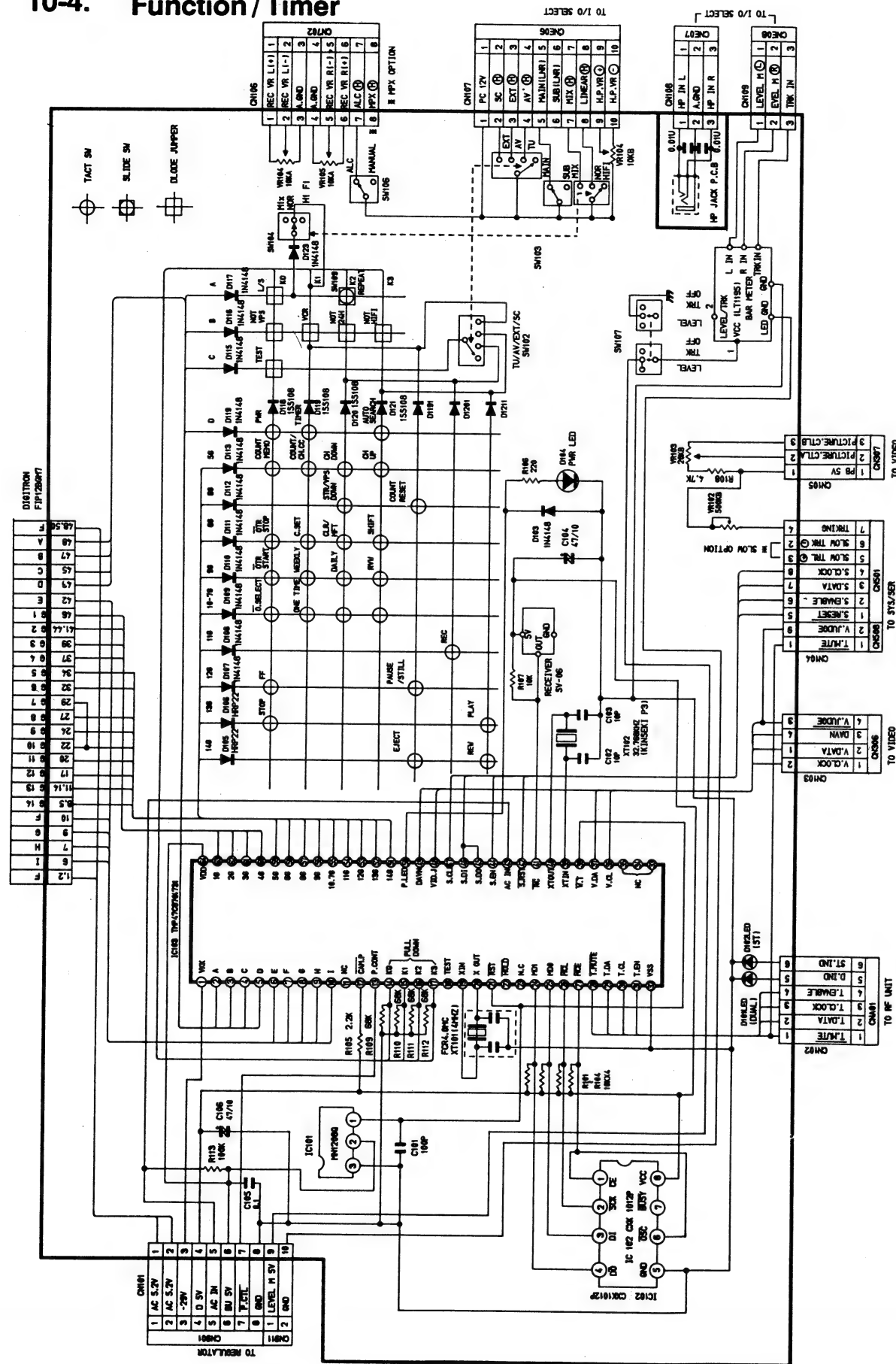


### 10-3. Deck Joint

[illegible]

IC1 DECK/JOINT C.B.A							
PIN NO	STOP	REC	PLAY	REW	F.FWD	REV S.	FWD S.
1	-3.4	0	0	0	0	0	0
2	0.5	0.6	0.5	0.5	0.5	0.6	0.6
3	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4	15	0.5	0.5	15	15	0.9	0.9
5	2.8	2.9	2.8	2.8	1.2	2.9	2.9
6	2.8	2.8	2.8	2.8	2.8	2.9	2.9
7	15	15	15	15	15	15	15
8	15	15	15	15	15	15	15
9	0.9	0.9	1.0	0.9	0.9	1.0	1.0
10	0.5	0.6	0.6	0.5	0.5	0.6	0.6

#### 10-4. Function / Timer



IC101	FUNC/TIMER C.B.A		
PIN NO	STOP	PLAY	RBC
1	-29.8	-29.8	-29.8
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	-	-	-
9	-	-	-
10	-	-	-
11	-	-	-
12	3.2	3.2	3.2
13	-0.5	-0.5	-0.5
14	0	0	0
15	1.5	1.5	1.5
16	0	0	0
17	1.5	1.5	1.5
18	0.2	0.2	0.2
19	2.3	2.3	2.3
20	2.4	2.4	2.4
21	-	-	-
22	0.2	0.2	0.2
23	0.2	0.2	0.2
24	5.0	5.0	5.0
25	0.0	0.0	0.0
26	5.0	5.0	5.0
27	5.0	5.0	5.0
28	-	-	-
29	3.9	3.9	3.9
30	-	-	-
31	-	-	-
32	0	0	0
33	0.2	0.2	0.2
34	0.2	0.2	0.2
35	0.2	0.2	0.2
36	5.0	5.0	5.0
37	5.0	5.0	5.0
38	5.1	5.1	5.1
39	2.3	2.3	2.3
40	2.6	2.6	2.6
41	5.0	5.0	5.0
42	4.4	4.4	4.4
43	3.0	3.0	3.0
44	-	-	-
45	-	-	-

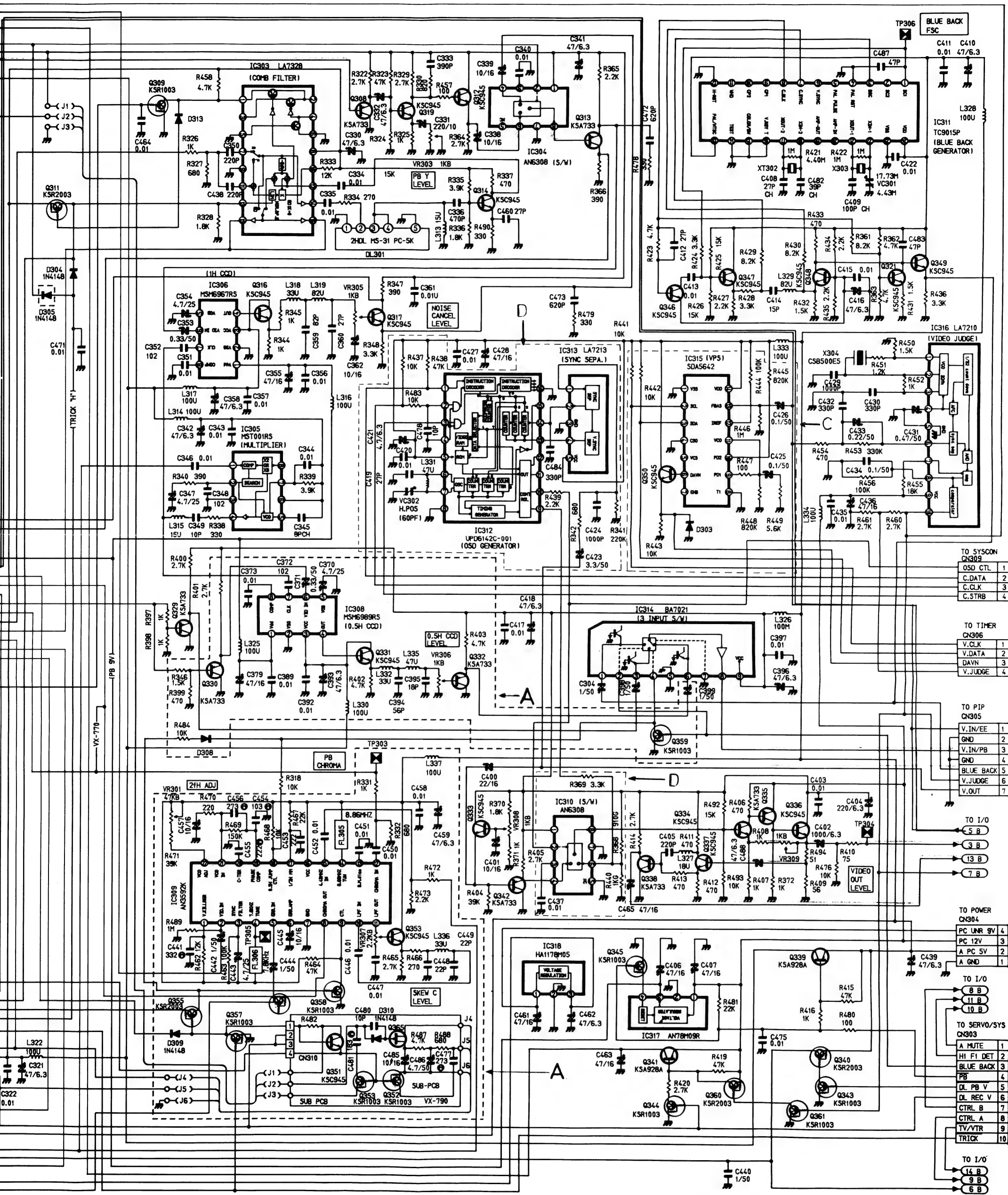
IC101		FUNC/TIMER C.B.A	
PIN NO	STOP	PLAY	RBC
46	4.6	4.6	4.6
47	4.7	4.7	4.7
48	3.9	3.9	3.9
49	4.3	4.3	4.3
50	4.3	4.3	4.3
51	-	-	-
52	-	-	-
53	-	-	-
54	-	-	-
55	-	-	-
56	-	-	-
57	-	-	-
58	-	-	-
59	-	-	-
60	-	-	-
61	-	-	-
62	-	-	-
63	-	-	-
64	-	-	-

IC102 FUNC/TIMER C.B.A			
PIN NO	STOP	PLAY	REC
1	5.0	1.0	5.0
2	5.0	1.0	5.0
3	0	0	0
4	5.0	1.0	5.0
5	0	0	0
6	5.0	1.0	5.0
7	-	-	-
8	5	5	5

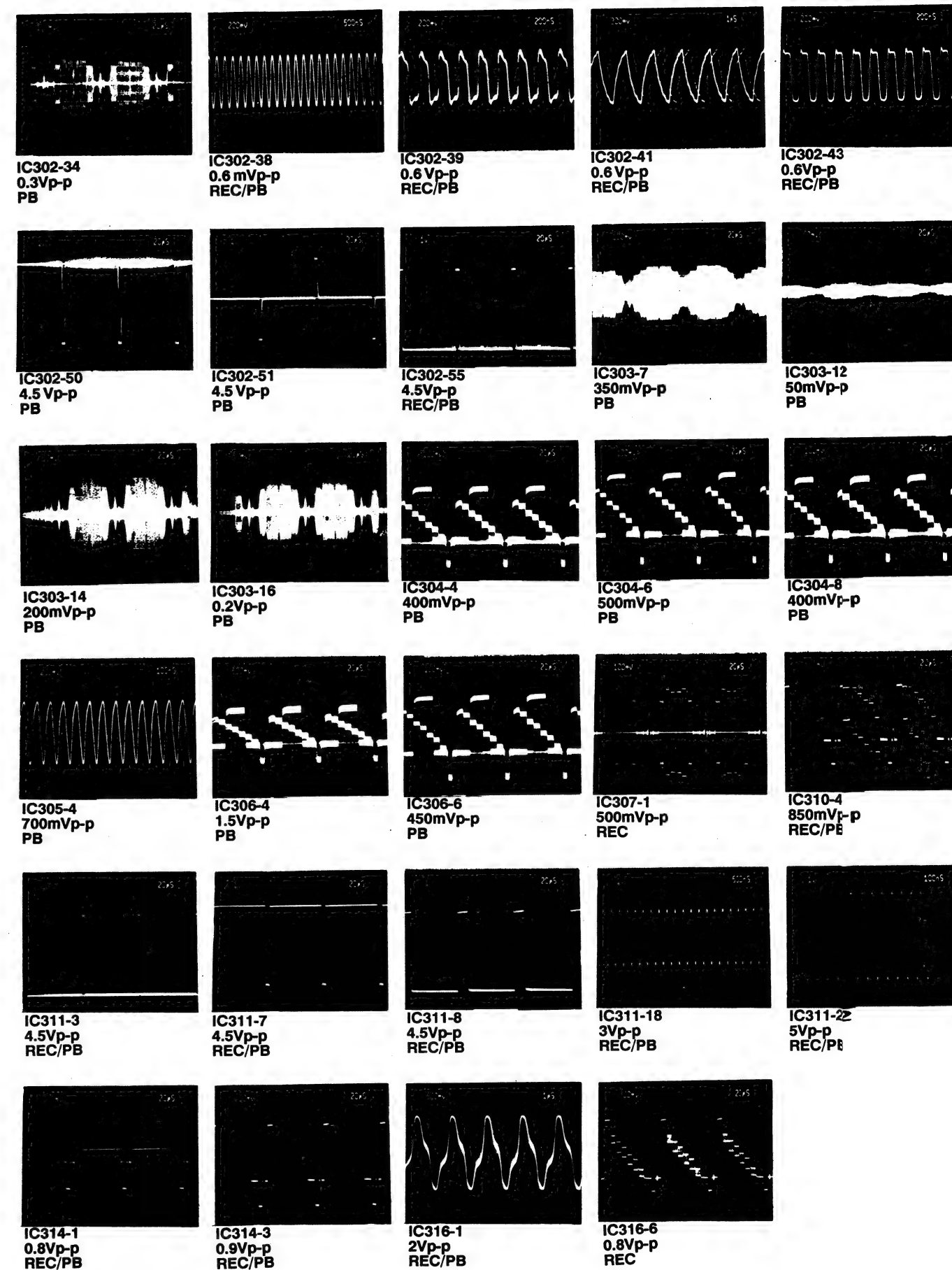
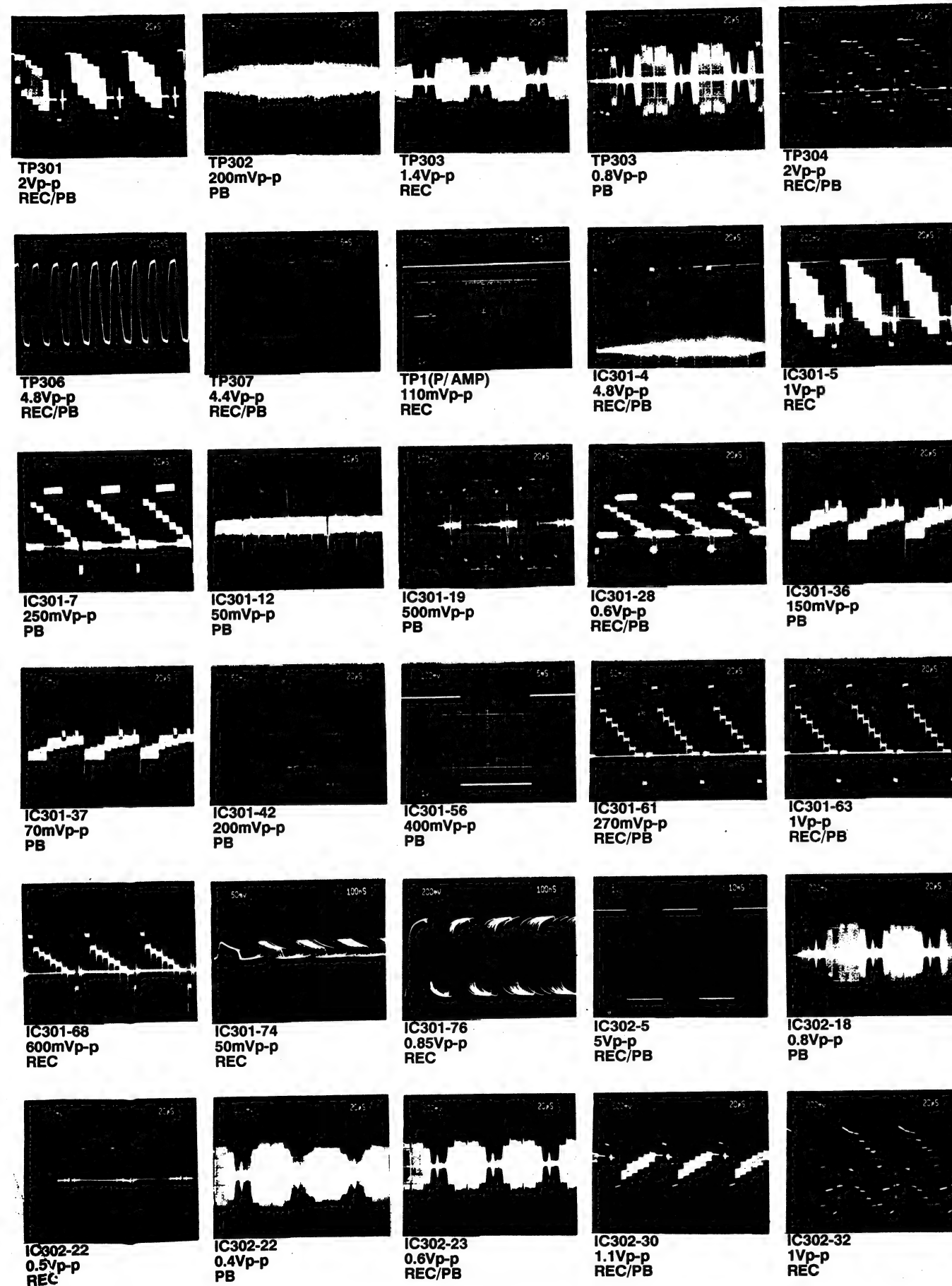
IC103 FUNC/TIMER C.B.A			
PIN NO	STOP	PLAY	REC
1	5.1	5.1	5.1
2	5.1	5.1	5.1
3	0	0	0







- TO SYCON  
Q309  
OSD CTL 1  
C.DATA 2  
C.CLK 3  
C.STRB 4
- TO TIMER  
Q306  
V.CLK 1  
V.DATA 2  
DAVN 3  
V.JUDGE 4
- TO PIP  
Q305  
V.IN/EE 1  
GND 2  
V.IN/PB 3  
GND 4  
BLUE BACK 5  
V.JUDGE 6  
V.OUT 7
- TO I/O  
5 B  
3 B  
13 B  
7 B
- TO POWER  
Q304  
PC UNR 9V 4  
PC 12V 3  
A PC 5V 2  
A GND 1
- TO I/O  
8 B  
11 B  
10 B
- TO SERVO/SYS  
Q303  
A MUTE 1  
HI FI DET 2  
BLUE BACK 3  
PB 4  
DL PB V 5  
DL REC V 6  
CTRL B 7  
CTRL A 8  
TV/VTR 9  
TRICK 10
- TO I/O  
14 B  
9 B  
6 B



IC301 MAIN "A"(VIDEO) C.B.A				
IC LOC.NO	PIN NO.	STOP	RBC	PLAY
IC 301	1	0.4	0.4	0
IC 301	2	2.4	2.4	2.4
IC 301	3	2.5	2.5	2.5
IC 301	4	0.4	0.4	0.4
IC 301	5	2.8	2.8	2.8
IC 301	6	2.3	2.3	2.0
IC 301	7	3.2	3.2	3.1
IC 301	8	1.3	1.3	1.3
IC 301	9	0	0	0
IC 301	10	1.9	1.9	2.3
IC 301	11	0.7	0.7	2.5
IC 301	12	0.4	0.4	3.1
IC 301	13	0	0	0
IC 301	14	4.5	4.5	2.7
IC 301	15	0	0	0
IC 301	16	0	0	0
IC 301	17	0	0	0
IC 301	18	0	0	0
IC 301	19	3.9	3.9	4.0
IC 301	20	2.2	2.2	0
IC 301	21	0	0	0
IC 301	26	0	0	0
IC 301	27	0	0	0
IC 301	28	1.6	1.6	1.6
IC 301	29	0	0	2.8
IC 301	30	0.1	0.1	3.1
IC 301	31	0	0	0
IC 301	32	0	0	1.4
IC 301	33	0.1	0.1	2.4
IC 301	34	0	0	0
IC 301	35	0	0	0.1
IC 301	36	0	0	3.6
IC 301	37	0	0	3.6
IC 301	38	0	0	0
IC 301	39	0	0	1.5
IC 301	40	0	0	0
IC 301	41	0	0	1.5
IC 301	42	0	0	1.5
IC 301	43	0	0	1.7
IC 301	44	0.1	0.1	2.1
IC 301	45	0	0	0
IC 301	46	0	0	3.7
IC 301	47	0.2	0.2	4.8
IC 301	48	0	0	3.2
IC 301	49	0	0	0.9
IC 301	50	0.3	0.3	4.9
IC 301	51	0	0	0
IC 301	56	0	0	3.2
IC 301	57	0.2	0.2	4.8
IC 301	58	0	0	0
IC 301	59	0	0	0
IC 301	60	0	0	0
IC 301	61	1.4	1.4	1.4
IC 301	62	0	0	0
IC 301	63	2.4	2.4	2.4
IC 301	64	0	0	0
IC 301	65	0.9	0.9	0.9
IC 301	66	4.0	4.0	4.0
IC 301	67	4.9	4.9	4.9
IC 301	68	2.1	2.1	2.1
IC 301	69	2.1	2.1	2.1
IC 301	70	0	0	0

IC302 MAIN "A"(VIDEO) C.B.A				
IC LOC.NO	PIN NO.	STOP	RBC	PLAY
IC 301	71	2.0	2.0	2.0
IC 301	72	3.2	3.2	3.2
IC 301	73	2.7	2.7	2.7
IC 301	74	2.9	2.9	2.9
IC 301	75	0	0	0
IC 301	76	3.3	3.3	4.4

IC302 MAIN "A"(VIDEO) C.B.A				
LOC.NO	PIN	STOP	RBC	PLAY
IC 302	1	5.0	5.0	5.0
IC 302	2	0.3	0.3	4.2
IC 302	3	0.3	0.3	0.3
IC 302	4	5.0	5.0	5.0
IC 302	5	0	0	0
IC 302	6	0	0	0
IC 302	7	4.9	4.9	4.9
IC 302	13	2.5	2.5	2.5
IC 302	14	2.5	2.5	2.5
IC 302	15	1.1	1.1	1.1
IC 302	16	0	0	0
IC 302	17	2.7	2.7	2.6
IC 302	18	2.0	2.0	2.0
IC 302	19	2.4	2.4	1.8
IC 302	20	0	0	0
IC 302	21	2.4	2.4	2.4
IC 302	22	3.5	3.5	3.5
IC 302	23	0	0	0
IC 302	24	0	0	0
IC 302	25	0	0	0
IC 302	26	0	0	1.7
IC 302	27	0	0	0
IC 302	28	0	0	0
IC 302	29	0	0	0
IC 302	30	3.2	3.2	2.7
IC 302	31	3.2	3.2	2.7
IC 302	33	4.9	4.9	0.2
IC 302	34	0.2	0.2	4.8
IC 302	35	4.4	4.4	3.0
IC 302	36	3.2	3.2	3.2
IC 302	37	3.2	3.2	3.2
IC 302	38	2.9	2.9	2.9
IC 302	39	2.8	2.8	3.2
IC 302	40	4.9	4.9	4.9
IC 302	41	3.9	3.9	3.9
IC 302	42	1.8	1.8	1.8
IC 302	43	4.1	4.1	4.1
IC 302	44	0	0	0
IC 302	50	4.7	4.7	4.6
IC 302	51	2.5	2.5	2.5
IC 302	52	0.2	0.2	4.8
IC 302	53	0	0	0.1
IC 302	54	0.2	0.2	0.3
IC 302	55	0.4	0.4	0.4
IC 302	56	0	0	0

IC MAIN "A"(VIDEO) C.B.A				
IC LOC.NO	PIN NO.	STOP	RBC	PLAY
IC 303	1	0.2	0.2	4.7
IC 303	2	0	0	2.1
IC 303	3	0	0	2.1
IC 303	4	0	0	0
IC 303	5	0	0	0
IC 303	6	0	0	0
IC 303	7	0.1	0.1	2.4
IC 303	8	0.2	0.2	4.8
IC 303	9	0	0	0
IC 303	10	0.2	0.2	2.9
IC 303	11	0.1	0.1	2.4
IC 303	12	0	0	2.6
IC 303	13	0	0	1.6
IC 303	14	0	0	1.7
IC 303	15	0	0	2.3
IC 303	16	0	0	2.3
IC 304	1	0.2	0.2	4.8
IC 304	2	0	0	4.3
IC 304	3	0	0	2.4
IC 304	4	0	0	2.5
IC 304	5	0	0	0
IC 304	6	0	0	2.5
IC 304	7	0	0	0
IC 304	8	0	0	2.5
IC 305	1	0	0	2.6
IC 305	2	0	0	2.2
IC 305	3	0	0	0
IC 305	4	0	0	3.2
IC 305	5	0	0	3.2
IC 305	6	0.2	0.2	4.9
IC 305	7	0.2	0.2	3.5
IC 305	8	0.1	0.1	3.5
IC 306	1	0.6	0.6	8.8
IC 306	2	0	0	0
IC 306	3	0.2	0.2	4.9
IC 306	4	0	0	3.3
IC 306	5	0	0	3.2
IC 306	6	0	0	2.2
IC 306	7	0	0	1.5
IC 306	8	0	0	4.6
IC 307	1	3.6	3.6	3.6
IC 307	2	0.2	0.2	1.0
IC 307	3	0	0	0
IC 307	4	3.6	3.6	3.6
IC 307	5	4.6	4.6	4.6
IC 307	6	0	0	0
IC 307	7	4.4	4.4	4.4
IC 307	8	0	0	0
IC 307	9	3.0	3.0	3.0
IC 307	10	0	0	0
IC 307	11	3.6	3.6	3.6
IC 307	12	0	0	1.9
IC 307	13	3.6	3.6	3.6
IC 307	14	0	0	1.8
IC 307	15	0	0	0
IC 307	16	0	0	0
IC 307	17	5.0	5.0	5.0
IC 307	18	5.0	5.0	5.0

IC MAIN "A"(VIDEO) C.B.A				
IC LOC.NO	PIN NO.	STOP	RBC	PLAY
IC311	1	2.5	2.5	2.5
IC311	2	2.5	2.5	2.5
IC311	3	0.2	0.2	0.2
IC311	4	0	0	0
IC311	5	2.5	2.5	2.5
IC311	6	0	0	0
IC311	7	1.3	1.3	1.3
IC311	8	1.3	1.3	1.3
IC311	9	0.1	0.1	0.1
IC311	10	0.4	0.4	0.4
IC311	11	0.8	0.8	0.8
IC311	12	0	0	0
IC311	13	5.0	5.0	5.0
IC311	14	0	0	0
IC311	15	0	0	0
IC311	16	0	0	0
IC311	17	2.2	2.2	2.2
IC311	18	2.5	2.5	2.5
IC311	19	0	0	0
IC311	20	4.8	4.8	4.8
IC311	21	2.6	2.6	2.6
IC311	22	2.6	2.6	2.6
IC311	23	0	0	0
IC311	24	5.0	5.0	5.0
IC315	1	0	0	0
IC315	2	5.0	5.0	5.0
IC315	3	5.0	5.0	5.0
IC315	4	0	0	0
IC315	5	0.5	0.5	4.9
IC315	6	4.9	4.9	4.9
IC315	7	0	0	0
IC315	8	0	0	0
IC315	9	2.1	2.1	0.1
IC315	10	1.8	1.8	1.3
IC315	11	2.1	2.1	0
IC315	12	3.4	3.4	4.9
IC315	13	1.6	1.6	1.2
IC315	14	5.0	5.0	5.0
IC317	1	11.8	11.8	11.8
IC317	2	0	0	0
IC317	3	0.6	0.6	8.9
IC317	4	0	0	10.2

TR MAIN " A "(VIDEO) C.B.A									
M O D E	S T O P			R E C			P L A Y		
TR NO.	B	B	C	B	B	C	B	B	C
Q 301	0	-0.5	0.4	0	-0.5	0.4	0	10.8	0
Q 302	2.0	2.7	3.9	2.0	2.7	3.9	0	0	5.0
Q 304	0	0.2	0.2	0	0.2	0.2	3.2	3.8	4.8
Q 307	0	0.3	0.2	0	0.3	0.2	4.2	4.9	4.9
Q 308	0.2	0	0	0.2	0	0	2.2	1.5	0
Q 309	0	0.3	0.2	0	0.3	0.2	0	0.3	4.7
Q 311	0.2	0.2	0	0.2	0.2	0	4.8	4.8	1.6
Q 312	0	0.2	0.2	0	0.2	0.2	2.7	3.4	4.9
Q 313	0.2	0	0	0.2	0	0	3.1	2.5	0.3
Q 314	0	0	0.2	0	0	0.2	0.9	1.5	3.6
Q 315	2.0	1.3	0	2.0	1.3	0	0.7	0	0
Q 316	0	0	0.2	0	0	0.2	2.6	3.3	5.0
Q 317	0	0	0.2	0	0	0.2	2.0	2.6	4.6
Q 318	0	2.4	0	0	2.4	0	0	0	2.8
Q 319	0	0	0.2	0	0	2.2	0.5	1.2	3.4
Q 320	0	0.2	0.2	0	0.2	0.2	1.0	1.7	3.8
Q 321	1.6	2.2	4.0	1.6	2.2	4.0	1.6	2.2	4.0
Q 322	4.9	0.2	4.9	4.9	0.2	4.9	4.9	4.8	-0.2
Q 323	2.2	2.8	5.0	2.2	2.8	5.0	2.2	2.8	4.9
Q 324	2.0	2.6	4.4	2.0	2.6	4.4	2.0	2.5	4.4
Q 325	4.9	4.8	0	4.9	4.8	0	4.9	4.9	0
Q 326	5	5	0	5	5	0	5	5	0
Q 326	4.9	4.9	0	4.9	4.9	0	4.9	4.9	0
Q 327	0	0	0	0	0	0	1.6	0.3	4.9
Q 328	2.6	0	2.5	2.6	0	2.5	2.6	0	2.5
Q 329	1.6	1.0	0	1.6	1.0	0	2.0	1.3	0
Q 333	0	1.4	5.0	0	1.4	5.0	0	1.8	5.0
Q 334	1.8	2.4	11	1.8	2.4	11	1.8	2.4	11
Q 335	12	11	3	12	11	3	12	11	3
Q 336	2.3	2.6	5	2.3	2.6	5	2.5	3.1	4.9
Q 337	1.2	1.8	3.7	1.2	1.8	3.7	1.2	1.8	3.7
Q 338	1.9	1.2	0	1.9	1.2	0	0	1.2	1.9
Q 339	5.0	0.2	5.0	5.0	0.2	5.0	5.0	4.3	5.0
Q 340	5	0	5	5	0	5	5	5	0
Q 341	12.0	12.0	11.0	12.0	12.0	11.0	12.0	12.0	0
Q 342	2.4	1.8	0	2.4	1.8	0	2.4	1.8	0
Q 343	0	5	0	0	5	0	0	0	5
Q 344	0	0	11.8	0	4.4	0	0	0	12
Q 345	0	5	0	0	5	0	0	5	0
Q 346	2.6	1	2.6	2.6	1	2.6	2.6	1	2.6
Q 348	2.0	2.6	4.0	2.0	2.6	4.0	2.0	2.6	4.0
Q 349	3.4	4.0	5.0	3.4	4.0	5.0	3.4	4.0	5.0
Q 350	4.3	5	5	4.2	5	5	4.2	5	5
Q 356	0	0.1	0	0	4.4	0	0	0.1	0
Q 360	12.0	12.0	11.0	12.0	12.0	11.0	12.0	0	12
Q 361	0	12	0	0	12	0	0	11	0

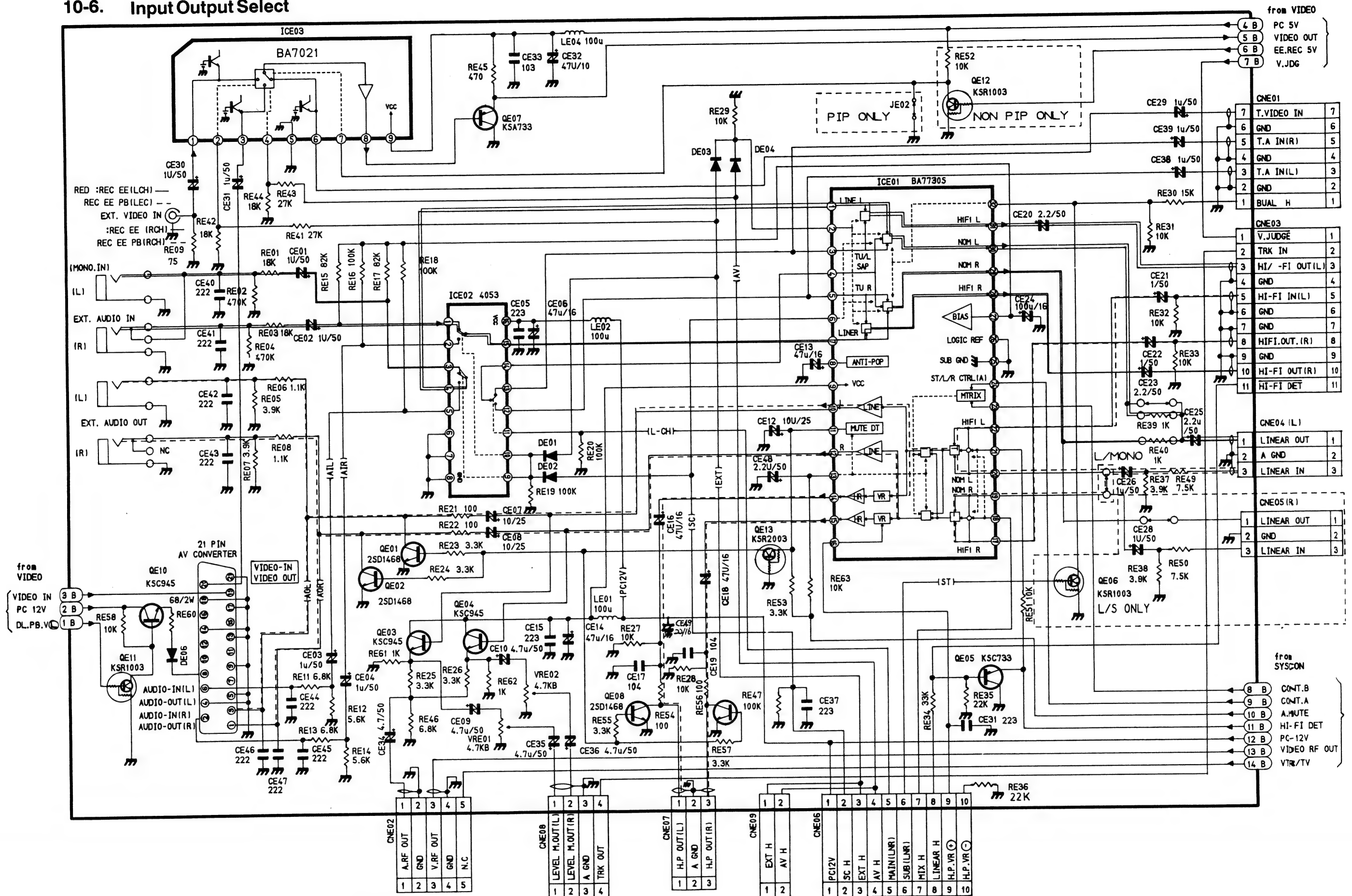


IC MAIN "C"(HI-FI)			
IC LOC.NO	PIN NO.	RBC	PLAY
IC 701	1	4.6	0.4
IC 701	2	1.0	0
IC 701	3	0	3.3
IC 701	4	4.5	0
IC 701	5	0	0
IC 701	6	0	0
IC 701	7	0	0
IC 701	8	0	1.7
IC 701	9	0	0.7
IC 701	10	0	0.6
IC 701	11	0	0
IC 701	12	0	0.6
IC 701	13	0	0.7
IC 701	14	0	1.7
IC 701	15	0	4.9
IC 701	16	0	0.6
IC 701	17	0	2.4
IC 701	18	0.3	2.9
IC 701	19	0	2.4
IC 701	20	0	5.0
IC 701	21	0	2.9
IC 701	22	0	0
IC 701	23	3.7	0
IC 701	24	8.9	0
IC 701	25	3.7	0
IC 701	26	0	3.8
IC 701	27	0	0
IC 701	28	0	0
IC 701	29	4.5	0.3
IC 701	30	4.0	0
IC 702	1	1.2	1.2
IC 702	2	1.0	1.0
IC 702	3	0	5.0
IC 702	4	3.4	0
IC 702	5	0.6	0.7
IC 702	6	2.2	2.6
IC 702	7	2.5	2.5
IC 702	8	5.0	5.0
IC 702	9	1.2	1.3
IC 702	10	0	0
IC 702	11	0	1.8
IC 702	12	2.5	2.3
IC 702	13	5.0	1.7
IC 702	14	5.0	4.3
IC 702	15	1.7	2.5
IC 702	16	2.2	2.5
IC 702	17	0	1.9
IC 702	18	0	1.8
IC 702	19	1.8	2.0
IC 702	20	1.2	4.1
IC 702	21	0	4.9
IC 702	22	4.2	0.4
IC 702	23	2.6	2.5
IC 702	24	1.2	1.2
IC 702	25	1.8	3.0
IC 702	26	2.5	2.5
IC 702	27	2.2	2.5
IC 702	28	1.7	2.5
IC 702	29	4.2	1.2
IC 702	30	5.0	1.7
IC 702	31	2.5	2.3
IC 702	32	0	1.8
IC 702	33	1.3	0
IC 702	34	5.0	1.4
IC 702	35	5.0	5.0
IC 702	36	2.5	2.5

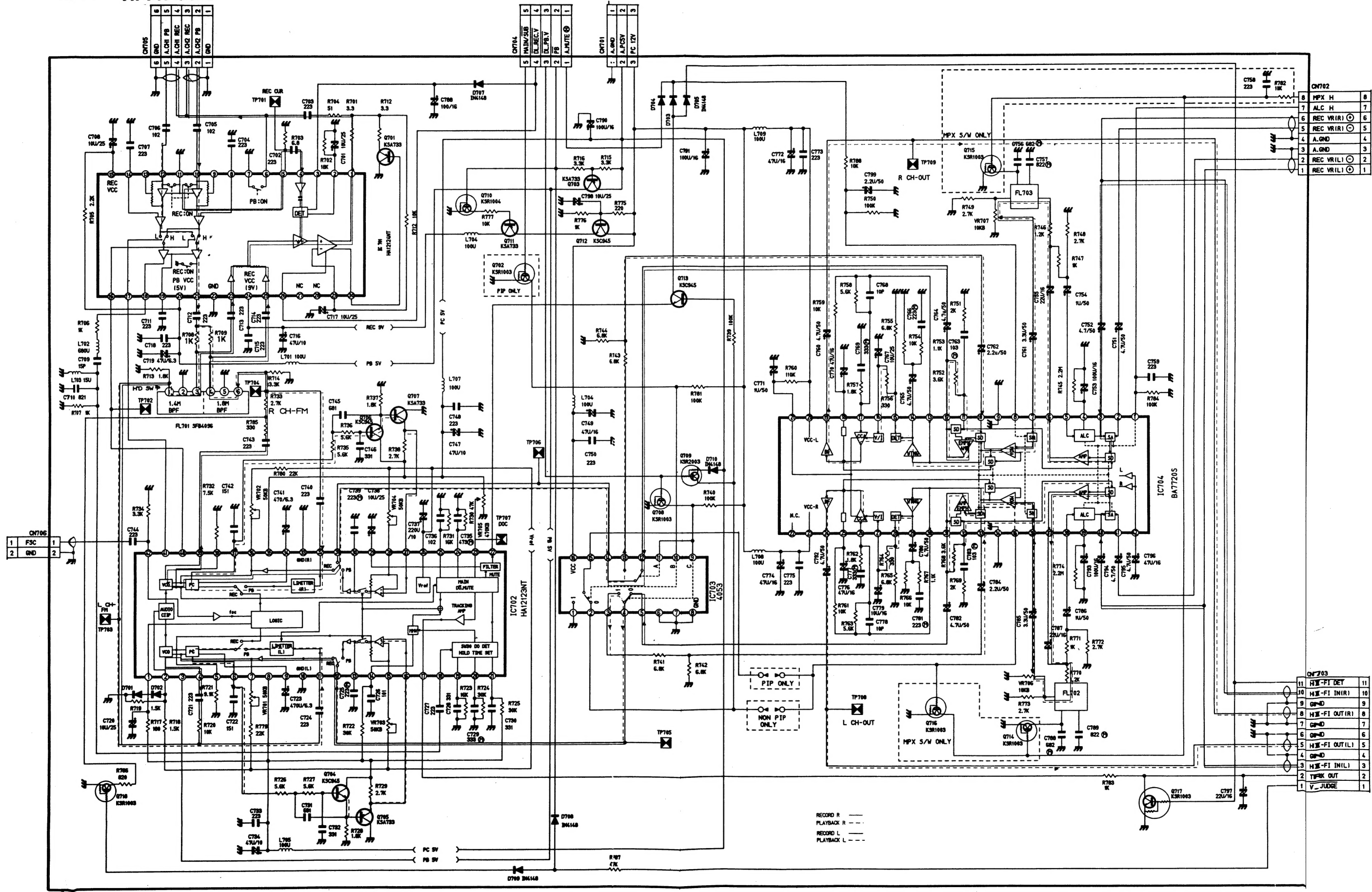
IC MAIN "C"(HI-FI)			
IC LOC.NO	PIN NO.	RBC	PLAY
IC 702	37	2.2	2.6
IC 702	38	0.6	0.7
IC 702	39	3.6	0
IC 702	40	0	0.6
IC 702	41	0	2.4
IC 702	42	0.5	0.5
IC 703	1	0	0
IC 703	2	0.3	4.5
IC 703	3	0	2.3
IC 703	4	2.5	2.3
IC 703	5	2.5	2.3
IC 703	6	0	0
IC 703	7	0	0
IC 703	8	0	0
IC 703	9	0	11.8
IC 703	10	11.8	11.8
IC 703	11	0	11.8
IC 703	12	2.5	2.4
IC 703	13	0	2.3
IC 703	14	2.5	2.3
IC 703	15	0	0
IC 703	16	12.0	12.0
IC 704	1	0	0
IC 704	2	6.0	6.0
IC 704	3	6.0	6.0
IC 704	4	0.6	0.6
IC 704	5	5.7	5.7
IC 704	6	6.0	6.0
IC 704	7	6.0	6.0
IC 704	8	0	0
IC 704	9	0	0
IC 704	10	6.0	6.0
IC 704	11	6.0	6.0
IC 704	12	6.0	6.0
IC 704	13	6.0	6.0
IC 704	14	6.0	6.0
IC 704	15	0	0
IC 704	16	0	0
IC 704	17	6.0	6.0
IC 704	18	6.0	6.0
IC 704	19	6.0	6.0
IC 704	20	12.0	12.0
IC 704	21	0.9	0.9
IC 704	22	0	0
IC 704	23	12.0	12.0
IC 704	24	6.0	6.0
IC 704	25	6.0	6.0
IC 704	26	6.0	6.0
IC 704	27	0	0.7
IC 704	28	0	0.5
IC 704	29	6.0	6.0
IC 704	30	6.0	6.0
IC 704	31	6.0	6.0
IC 704	32	6.0	6.0
IC 704	33	6.0	6.0
IC 704	34	0	0
IC 704	35	0.2	4.5
IC 704	36	6.0	6.0
IC 704	37	6.0	6.0
IC 704	38	5.7	5.7
IC 704	39	0.6	0.6
IC 704	40	6.0	6.0
IC 704	41	6.0	6.0
IC 704	42	6.0	6.0

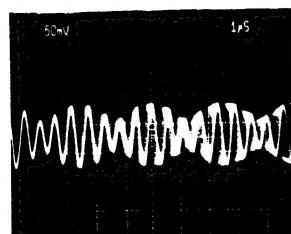
TR MAIN "C"(HI-FI)			
TR LOC.NO	PIN NO.	RBC	PLAY
Q 701	E	4.5	0.3
	B	4.0	0
	C	0	0
Q 703	E	5.1	5.1
	B	5.1	4.3
	C	0	5.0
Q 704	E	1.6	2.5
	B	2.2	1.9
	C	5.0	0
Q 705	E	2.2	2.5
	B	1.6	1.9
	C	0	0
Q 706	E	1.6	1.9
	B	2.2	2.5
	C	5.0	5.0
Q 707	E	2.2	2.5
	B	1.6	1.8
	C	0	0
Q 709	E	4.7	4.5
	B	4.5	0.1
	C	0.2	4.5
Q 710	E	0	0
	B	5.0	0.2
	C	0	8.6
Q 711	E	0	9.4
	B	8.3	8.6
	C	8.9	0
Q 712	E	9.0	9.4
	B	9.8	9.8
	C	11.9	11.8
Q 713	E	0	0.4
	B	0	0.9
	C	4.2	0.4
Q 717	E	0	0
	B	0	3.2
	C	0	0
Q 718	E	0	0
	B	3.7	0.4
	C	0	0

# 10-6. Input Output Select

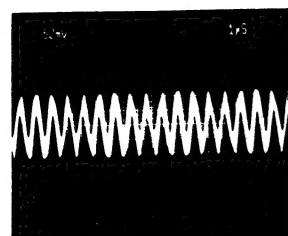


10-7. Hi-Fi Audio

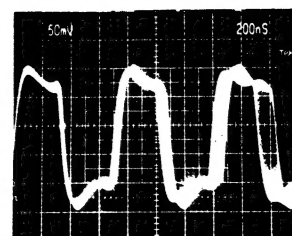




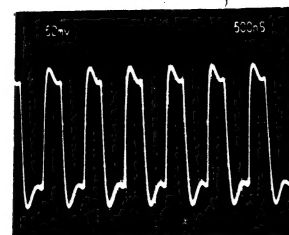
TP701  
110mVp-p  
REC AFM  
F=1 KHz



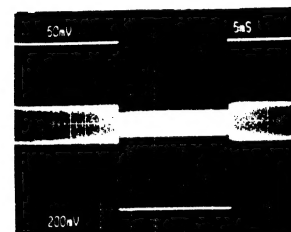
TP701  
110mVp-p  
REC AFM  
F=0 Hz



TP703  
230mVp-p  
L CH-FM  
F=1 KHz



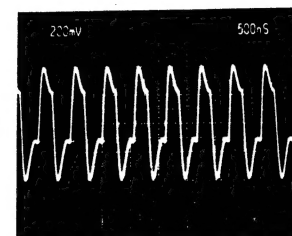
TP703  
230mVp-p  
L CH-FM  
F=0 Hz



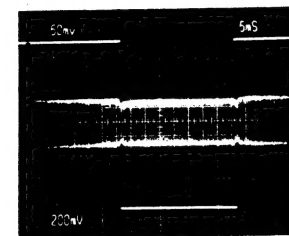
TP703  
230mVp-p  
PB



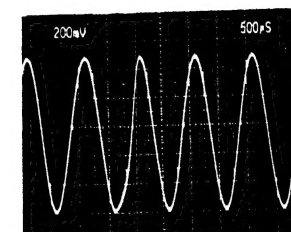
TP704  
880mVp-p  
R CH-FM  
F=1 KHz



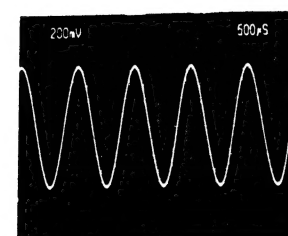
TP704  
800mVp-p  
R CH-FM  
F=0 Hz



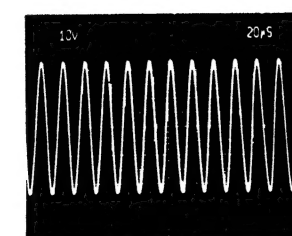
TP704  
400mVp-p  
PB



AUDIO OUT  
1.1Vp-p  
PB

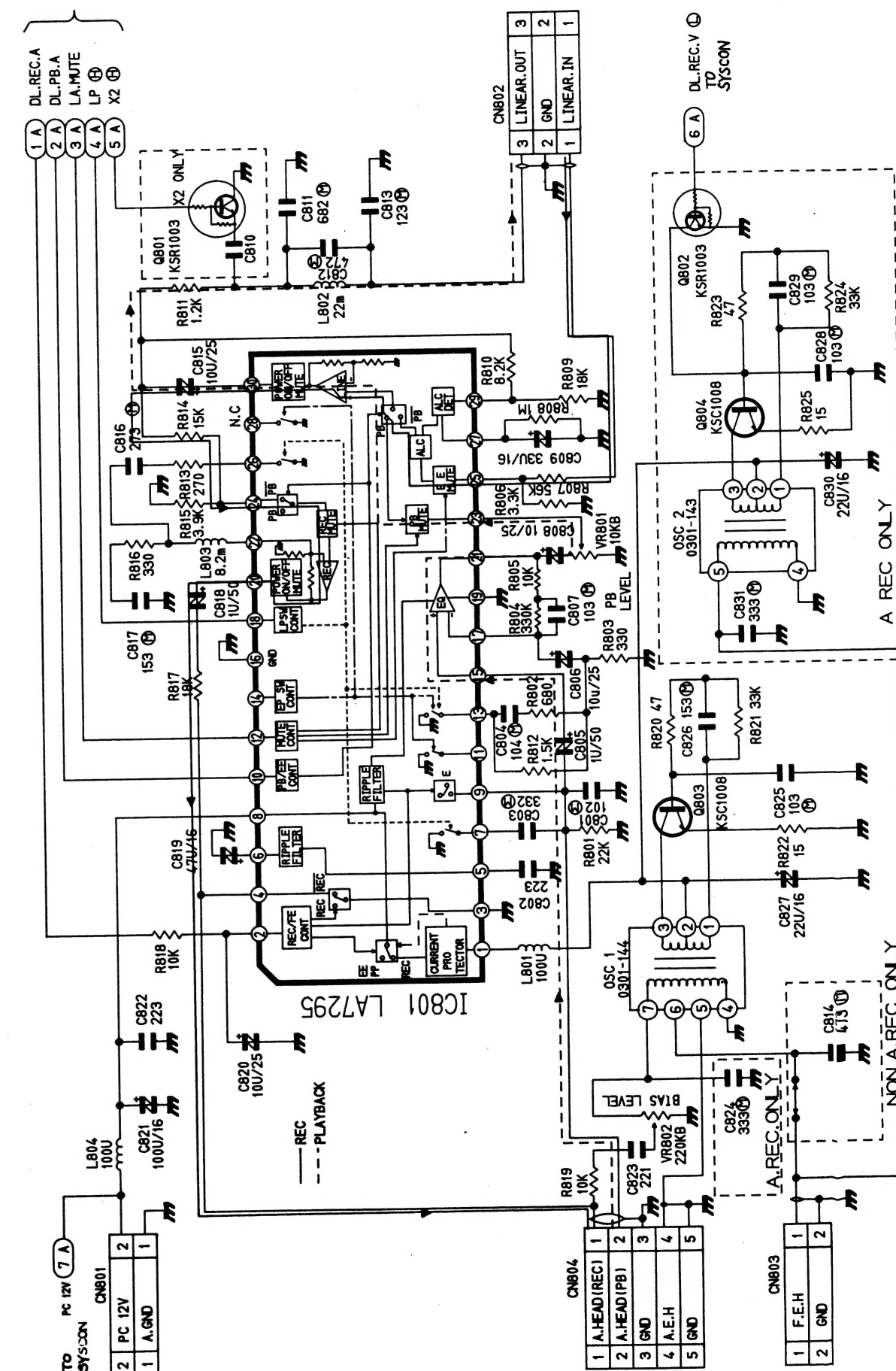


AUDIO IN  
800mVp-p  
REC



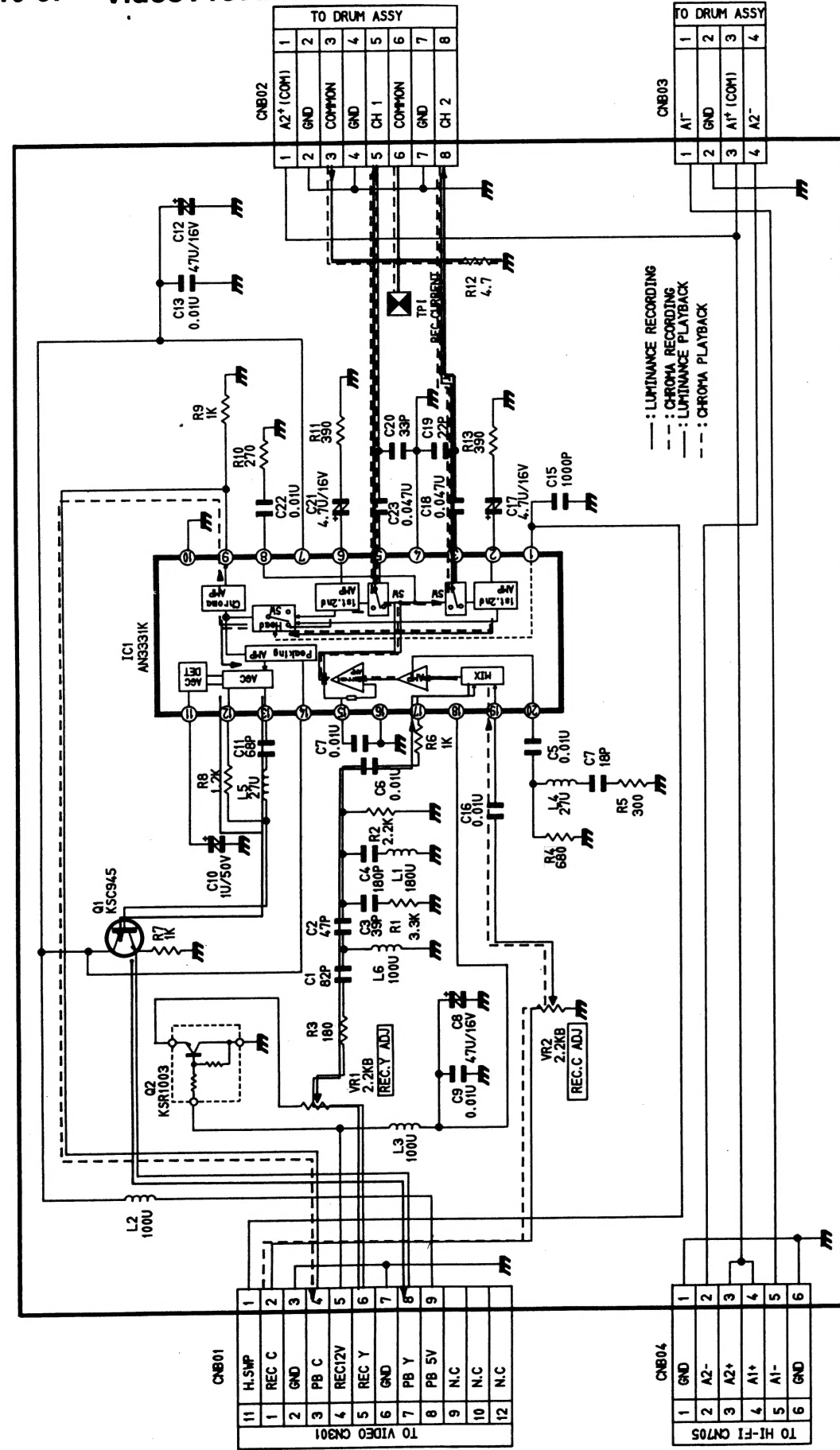
CN803-1  
45Vp-p  
REC

## 10-8. Linear Audio



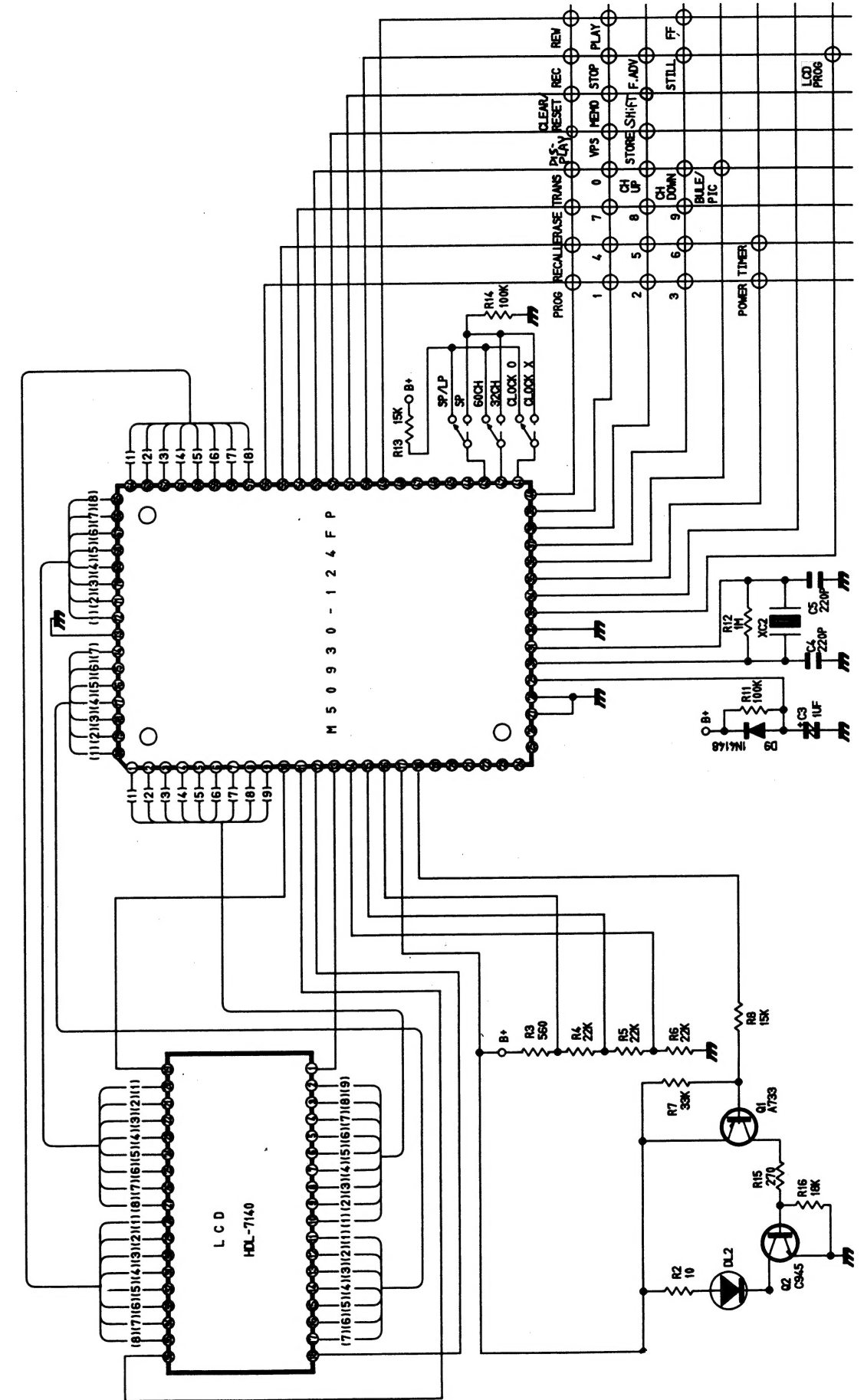


# 10-9. Video Pre AMP

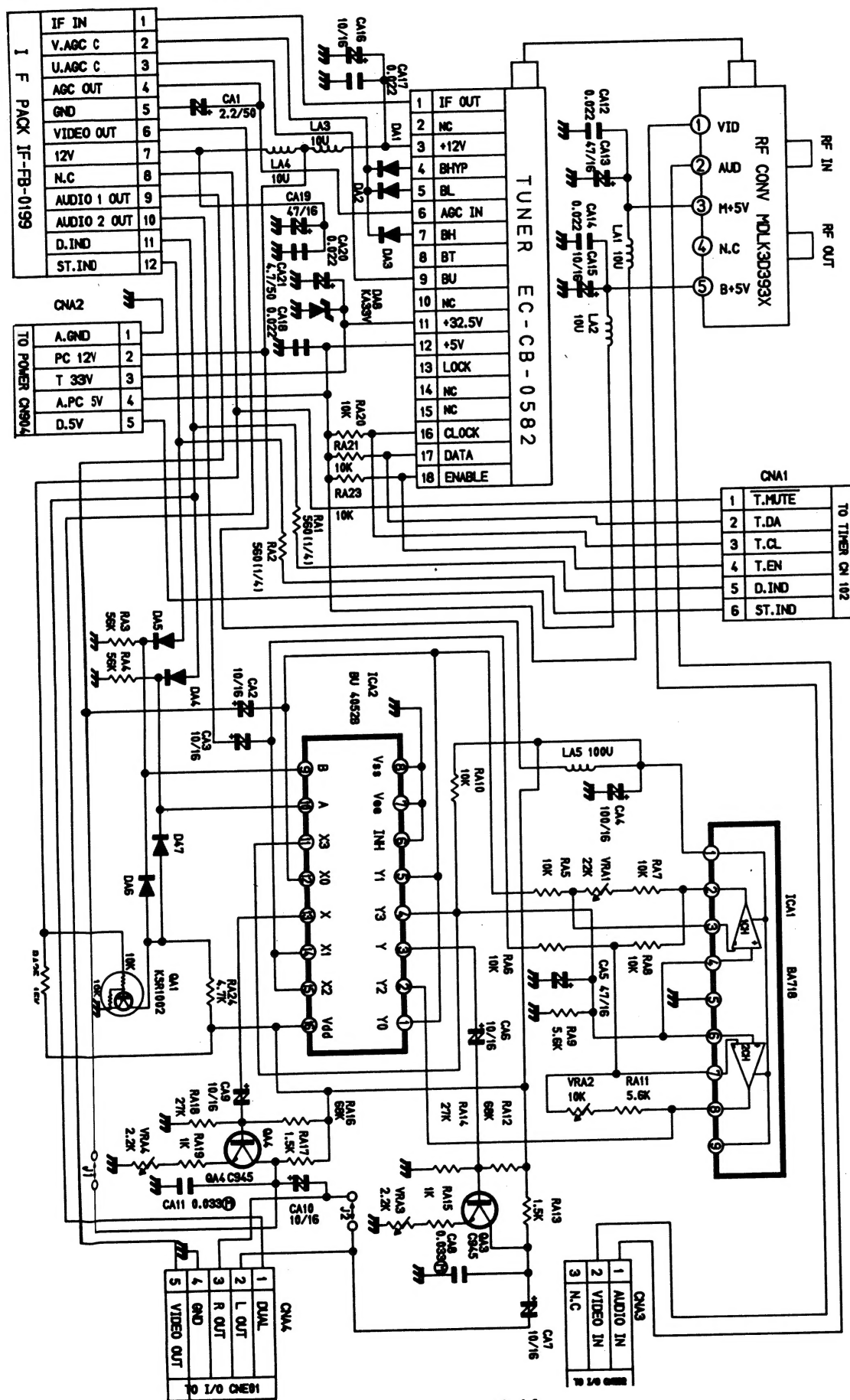


10-13

# 10-10. Remote Control



10-11. Tuner(SVX-319,VX-770,VB-770)



10-12. Tuner(VI-770)

